CANADIAN THESES ON MICROFICHE

I.S.B.N.

THESES CANADIENNES SUR MICROFICHE

National Library of Canada
Collections Development Branch

Canadian Theses on
Microfiche Service

Ottawa, Canada
K1A 0N4

Bibliothèque nationale du Canada
Direction du développement des collections

Service des thèses canadiennes
sur microfiche

NOTICE

The quality of this microfiche is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us a poor photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this film is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30. Please read the authorization forms which accompany this thesis.

THIS DISSERTATION
HAS BEEN MICROFILMED
EXACTLY AS RECEIVED

AVIS

La qualité de cette microfiche dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de mauvaise qualité.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, examens publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de ce microfilm est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30. Veuillez prendre connaissance des formules d'autorisation qui accompagnent cette thèse.

LA THÈSE A ÉTÉ
MICROFILMÉE TELLE QUE
NOUS L'AVONS REÇUE

NL-339 (r. 82/08)

Canada

National Library of Canada
Canadian Theses Division
Ottawa, Canada
K1A 0N4

Bibliothèque nationale du Canada
Division des thèses canadiennes

54073

0-315-06153-7

PERMISSION TO MICROFILM — AUTORISATION DE MICROFILMER

- Please print or type — Écrire en lettres moulées ou dactylographier

Full Name of Author — Nom complet de l'auteur

SARAH LYN WEAVER

Date of Birth — Date de naissance

October 10, 1950

Country of Birth — Lieu de naissance

CANADA

Permanent Address — Résidence fixe

2238 - 28th St. S.W.
CALGARY, T3E 2H6 Alberta

Title of Thesis — Titre de la thèse

Implementation and Monitoring in Planning: The Experience of the Edmonton General Municipal Plan

University — Université

ALBERTA

Degree for which thesis was presented — Grade pour lequel cette thèse fut présentée

Master of Arts

Year this degree conferred — Année d'obtention de ce grade

1981 (Fall)

Name of Supervisor — Nom du directeur de thèse

DR. PETER J. SMITH

Permission is hereby granted to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

L'autorisation est, par la présente, accordée à la BIBLIOTHÈQUE NATIONALE DU CANADA de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans l'autorisation écrite de l'auteur.

Date

October 16, 1981

Signature

Sarah Weaver

NL-91 (4/77)

THE UNIVERSITY OF ALBERTA

IMPLEMENTATION AND MONITORING IN PLANNING:
THE EXPERIENCE OF THE EDMONTON
GENERAL MUNICIPAL PLAN

by

Ⓒ SARAH LYN WEAVER

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF ARTS

DEPARTMENT OF GEOGRAPHY

EDMONTON, ALBERTA

FALL, 1981

THE UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR	Sarah Lyn Weaver
TITLE OF THESIS	Implementation and Monitoring in Planning: The Experience of the Edmonton General Municipal Plan

DEGREE FOR WHICH THIS THESIS WAS PRESENTED Master of Arts

YEAR THIS DEGREE GRANTED 1981

Permission is hereby granted to THE UNIVERSITY OF ALBERTA LIBRARY to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purposes only.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

(Signed) Sarah Weaver

PERMANENT ADDRESS:

2238 - 28th Street S.W.
Calgary, Alberta, Canada

DATED October 15, 1981

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "Implementation and Monitoring in Planning: The Experience of the Edmonton General Municipal Plan" submitted by Sarah Lyn Weaver in partial fulfilment of the requirements for the degree of Master of Arts.

Smith

Supervisor

J K Mason

Date October 2, 1981

ABSTRACT

The central argument in the thesis is that the comprehensive rational model of public policy-making has led to a misunderstanding of the manner in which a municipal general plan can influence the dynamic urban environment. Because of this, plans in the past have been noted for their ineffectiveness: limited influence upon decision-making, or, if implemented, a high frequency of unintended consequences. Rather than a linear, expert-centered, planning process oriented only towards the writing of a planning document, a more process-oriented planning model is proposed.

The model identifies two key components of effective planning: implementation (the translation of policy into action), and monitoring (the process of feedback, learning and amendment of plan policies). A review of relevant literature provides some guidelines for effective implementation and monitoring systems, pertaining to the process of preparing a plan, the document itself, the planning organization, and continuing planning activities.

The remainder of the thesis is an analysis of an actual planning exercise in terms of these criteria. The author's personal involvement in a review of the 1971 general plan for Edmonton, Alberta provided detailed and intimate knowledge of the Edmonton planning system, including the events leading up to the preparation of a new plan in 1979.

The analysis demonstrates that, in the two years following the release of the draft plan, little progress had been made in bringing about its implementation or in establishing systems for monitoring its effectiveness - although both were major objectives of the plan exercise. This situation is attributed to a number of deficiencies in the plan preparation process, the plan document, current activities of the Edmonton planning department, and the structure of the municipal organization. Despite these observations, there is some cause for optimism, and the thesis concludes by identifying the implications for changes to the planning system, as well as the wider topics of Alberta planning legislation, national urban research, and the education of planners.

ACKNOWLEDGEMENTS

I owe a number of debts for the writing of this thesis. My supervisor, Dr. P.J. Smith, has shown enduring patience and faith, and his incisive comments and questions have many times illuminated key issues. To the City of Edmonton, several notes of thanks are due. First, for providing me with a warmly remembered and educational employment experience. Second, for funding the scholarship which financed me during the year in which I worked on the thesis. And, third, for the invaluable help and encouragement which I have received from the many staff in the Planning Department who have welcomed me into their offices. Thanks are especially due to planners on the general municipal plan project: Greg Barker, Tom Fletcher, Ken Johnson, Brian Kropf, Mike Kubasiewicz, Roland Nogue and Rick Rockwood. Despite the occasional critical comments in the thesis, I respect and admire these professionals for continuing to advocate the importance of strategic planning and monitoring, and for their diligent efforts to develop these processes in Edmonton. I owe a primary debt to my parents who have instilled in me a conviction that knowledge and understanding are worthwhile goals, and who have helped provide me with many skills needed for this quest. Finally, to my husband, Stephen Kipp, my acknowledgement here is but small indication of my gratitude for his commitment and unswerving confidence in my project, and for his amiable acceptance of the sacrifices necessary for its completion.

TABLE OF CONTENTS

Page

LIST OF TABLES xii

LIST OF FIGURES xiii

CHAPTER

1. INTRODUCTION 1

2. THE RATIONAL-COMPREHENSIVE MODEL OF LAND USE PLANNING 5

  The Rational-Comprehensive Approach to Policy-Making 6

    Possibility of Comprehensive Knowledge 7
    Comprehensiveness 7
    Linearity 7
    Means above Ends 7
    Unitary Public Interest 8
    The Importance of the Expert 8

  Implications for the Land Use Planning Process 9

    Rationale for Planning 9
    Conception of the Comprehensive Plan 10
    The View of the Planning Process 11

  The Experience with Comprehensive Planning 12

    The Experience in Great Britain 12
    The Experience in the United States 15
    Canadian Experience 17
    Conclusion 18

  The Literature of Planning Theory 19

    Overview 19
    Comprehensive Knowledge 21
    Comprehensive Range of Alternatives 23
    Linearity 26
    The Relationship of Ends and Means 29
    The Public Interest and the Role of the Planner 30

Page

Implications for the Planning Process 35

  Purpose 35
  Assumptions 35
  Process 35
  The Plan Document 37
  Organization 39

A Model of a Planning System 40

3. LINKING THE STRATEGIC PLAN TO CONTINUOUS CONTROL: IMPLEMENTATION SYSTEMS FOR LAND USE PLANNING 44

The Policy-Implementation Link 44

Comprehensive Plans and Land Use Control 47

  The American Experience with Zoning 47
  Development Control in Great Britain 49
  Canadian Experiences in Land Use Control 52

Criticisms of Conventional Land Use Control Techniques 53

  Criticisms of Zoning 53
  Criticism of Development Control 54
  Summary - Towards Criteria for an Effective Control System 55

Current Views of Implementation 58

  The Views of Planning: Land Use Guidance Systems 58
  The Views of Public Administration 62
  Synthesis - Criteria for an Effective Control System 66

4. LINKING THE STRATEGIC PLAN TO CONTINUOUS LEARNING: MONITORING SYSTEMS 68

Monitoring in Practice 68

Issues in Defining the Functions of a Monitoring System 70

  Information to be Monitored 70
  The Output of the System 72

Page

Issues in Implementing a Monitoring Program 74

- Information Requirements 74
- Analytic Approaches - Measuring Plan Progress 76
- Analytic Approaches - Policy Analysis 78
- The Role of Citizens in Monitoring 80

Issues in Organization Structure 81

- Location within the Organization 82
- The Link between Monitoring and Implementation 83
- The Link between Monitoring and Strategic Planning 85
- Monitoring and the Organization Environment 86

Synthesis - Criteria of Effective Monitoring Systems 91

Conclusion 93

5. PLANNING LEGISLATION IN ALBERTA AND THE FRAMEWORK FOR EDMONTON'S GENERAL PLAN 95

Land Use Control in Alberta Legislation 96

- The Planning Act 96
- The Link between Control and Policy 97
- The Role of Plans in Alberta 99
- The Nature of the General Plan 103
- Flexibility of the Control System 107

The Edmonton 1971 General Plan 109

- Contents of the Plan 109
- Assessment of the Plan 112

Policy and Program Review in Alberta Legislation 115

- Legislative Attitude towards Review 115
- The Review of Edmonton's General Plan 118

6. PLAN REVIEW AND PREPARATION IN EDMONTON 120

The Definition of Program Objectives 121

- Activity during 1975 121
- Activity during 1976 123
- Activity during 1977 125
- Activity during 1978 129
- Conclusions 131

Page

Program Activities from September 1978 to September 1979 133

The Preparation of Land Use Policy 133

Issue Identification 134
Generation of Alternatives 137
Evaluation of Alternative Strategies 143
Policy Development 146
Role of the Community in Policy Development 147

Implementation and Monitoring Procedures 153

Implementation 153
Monitoring 158

Plan Finalization and Approval 159

The Product 159
Plan Approval 160

Summary 162

Staff 162
Budget 164
Time 164
Conclusions 164

7. THE PLANNING SYSTEM IN EDMONTON AND THE ROLE OF THE GENERAL MUNICIPAL PLAN 173

The Edmonton Planning System 174

Structure of the Civic Administration 174
Structure of the Planning Department 178
Conclusions 183

Output of the General Municipal Plan Process 184

The Plan Document 184
Plan Finalization 187
Implementation Activities 187
Monitoring Systems 194

8. OBSERVATIONS AND IMPLICATIONS FOR CHANGE 200

Implementation 201

Plan Preparation Process 201
Current Activities 202
Quality of the Plan 204
Organization 206

Page

Monitoring 207

  Plan Preparation Process 207
  Current Activities 208
  Role of Citizens in Monitoring 210
  Quality of the Plan 212
  Organization 213
  Urban Policy Research 215
  Planning Legislation 216
  Planning Education 217
  Concluding Statement 218

GENERAL REFERENCES 219

GOVERNMENT DOCUMENTS 230

APPENDIX 1 234

LIST OF TABLES

Table		Page
1	Allocation of Staff Time by Activity in the Edmonton General Plan Review, to September 1979	163
2	Breakdown of Expenditures, General Plan Review, January 1, 1977 to December 31, 1979	165

LIST OF FIGURES

Figure		Page
1	A Model of a System for Controlled Environmental Change	41
2	Generalized Review Process to Employ during a Scan	42
3	The Structure of Plans and Controlling Bylaws under the Alberta Planning Act, 1977	100
4	Key Events in the General Plan Review Program, 1974 - 1981	166
5	City of Edmonton Planning Department Organization Structure	179

Chapter 1

INTRODUCTION

> Planning seeks to achieve that physical environment that will best promote the ecomomic, social, and moral welfare of the inhabitants of the community.
>
> Ian MacF. Rogers, Canadian Law of Planning and Zoning, 1980

> We in the western world must seem to others to be a fortunate few with resources and knowledge enough to solve our urban problems, but we seem largely to have failed to do so. The rest of the world is unlikely to think they have much to learn from us.
>
> Harry Lash, Planning in a Human Way, 1976

> Believing that any problem can be solved if only we try hard enough, we do not hesitate to attempt what we do not have the least idea of how to do and what, in some instances, reason and experience both tell us cannot be done.
>
> Edward Banfield, The Unheavenly City Revisited, 1974

> A major and, indeed, frightening part of the present situation is our growing inability to bring the relevant scientific and technical knowledge to bear on political action...We are in danger of following one of the roads that lead to repression, stagnation, or breakdown.
>
> John Friedmann, Retracking America, 1973

The literature of planning theory is a curious mixture of optimism and pessimism. Optimism, a legacy of the "Enlightenment" of the 17th and 18th centuries, is reflected in some of the implicit assumptions underlying land use planning legislation. For example, a major one holds that, by the application of a reasoned, rational planning (or decision) process, a correct or "best" solution will be found for the problem being analyzed. There is thus a fundamental and unswerving faith in the ability of man to control, or bring about, a future he desires. The quotation from Rogers reflects this faith.

The optimism of planning legislation is sharply contradicted by the writings of practitioners and theoreticians. A burgeoning literature is claiming that planning is ineffective, and is questioning many of the assumptions and practices of the traditional approaches of planning. Critics hold up examples of unfulfilled or disastrous plans, and argue that, in a world of resource scarcity, increasing population, and increasing environmental degradation, we can no longer afford not to learn from our mistakes. To do so requires a different style of planning from the one associated with traditional assumptions. The quotations from Lash (a practising planner), Banfield (a social scientist), and Friedmann (a planning theorist), attest to the strong currents of pessimism running through the writing of urban planning today.

This thesis is concerned with this discrepancy between optimism in legislation and the pessimism of evaluative literature. It came to be written as part of a personal odyssey after I had spent six years in a planning agency watching, with dismay and growing disillusionment, the results of planning. Plans were being prepared but not implemented; plan policies often had unintended - and sometimes disastrous - consequences; and obsolete or harmful plan policies were continuing long after evaluation had shown them to be undesirable.

The central argument of the thesis is that one of the fundamental reasons for plan ineffectiveness lies in past misunderstandings about the interface between the static plan and the dynamic urban system which the plan is to influence. Most plan preparation exercises have been guided by attitudes and legislation rooted in the assumptions of the "rational-comprehensive" approach to policy formation. Chapter 2 demonstrates some of the deficiencies of this model and sketches an alternative view of a system for planning, emphasizing the implementability and responsiveness of plan policies. The thesis argues that it is upon these two components of effectiveness that a planning process must focus: implementability - translating plan policies into action in the real world; and, responsiveness to change in the environment - being "self-correcting" if plan policies prove to be unworkable.

These two elements of planning effectiveness are developed in Chapters 3 and 4. Chapter 3 explores the link between policy and implementation. Chapter 4 examines means of monitoring change in the environment and feeding information back to the planning system. The purpose of both chapters is to establish criteria for effectively implementing and monitoring plan policies.

In Chapter 5, the development of the thesis argument shifts from a review of pertinent literature to a case study. The situation selected for examination was a long range planning exercise in Edmonton, Alberta during which the 1971 general plan for the city was reviewed and a new plan prepared and adopted. My involvement in this project creates an opportunity for a retrospective evaluation. The case study is introduced in Chapter 5 by way of examining the legislative framework governing the plan contents and role. The focus in the chapter is upon the way the legislation treats questions of implementability and responsiveness to change.

In Chapters 6 and 7 the level of analysis becomes more specific. The conclusions of the theory review, that the foundations of implementation and monitoring must be laid during plan preparation, form the analytic framework. Chapter 6 examines the plan-making process in light of these criteria, as well as the legislative requirements and the planning team's intentions. Chapter 7 looks at the products of our efforts, both the plan document and the various programs flowing from it.

The final chapter of the thesis summarizes the analysis into an evaluative statement, and draws out implications for change.

Chapter 2

THE RATIONAL-COMPREHENSIVE MODEL OF LAND USE PLANNING

The concepts of "rationality" and "comprehensiveness" are central to urban land use planning; their influence is reflected in much of the legislation governing the control of land.

It is argued in this chapter that the pursuit of rationality and comprehensiveness in planning practice has been at the expense of other criteria of effective planning. While both are desirable, effectiveness includes other conditions which have been neglected in the past. For example, the implementability of a plan, and its responsiveness to environmental change, are as important as the comprehensiveness or the rationality of the process by which it was prepared. A planning process intended to produce an implementable, responsive plan has different requirements from one oriented to producing a rational, comprehensive plan.

The inadequacy of the rational comprehensive model of plan preparation has been clearly identified for many years in the theoretical literature. Since the mid-1950's at least, shifts in the style of planning have been advocated (Meyerson, 1956; Dakin, 1960; Mitchell, 1961). Yet, the rational-comprehensive model continues to be reflected in planning legislation and practice. The chapter therefore begins with a description of the model, followed by a review of some of the critical literature. From the synthesis of this criticism is developed an alternative model of planning which provides the framework for the remainder of the thesis.

THE RATIONAL-COMPREHENSIVE APPROACH TO POLICY-MAKING

Since the Enlightenment of the 17th and 18th centuries, when Western man began to reject the authority of the church in determining knowledge and instead placed his faith in the supremacy of science, there has been a current of optimism running through our approach to knowledge. The development of a rational approach to experimentation and observation in the physical sciences had facilitated remarkable gains in man's understanding of the laws governing nature. The 18th century was characterized by an optimistic belief in progress and the continuing growth of knowledge. Man's ability to reason was thought to be powerful enough to yield complete deterministic knowledge of cause-effect relationships, not only in the natural sciences, but also in history and social phenomena (Berlin, 1956, p. 14; Russell, 1961, pp. 479-482; Pollard, 1968, Ch. 2).

This current of optimism is reflected today through positivism - belief in the existence of objective knowledge, empirically derived, in which fact (objective knowledge) can be separated from value (normative belief) (Dyckman, 1961; Klosterman, 1978). Emphasis is placed upon scientific technique and a linear process of reasoning which seeks an ideal, optimal solution to each given problem. The idea of optimization is reflected in the utilitarian belief that, through objective reasoning, it is possible to identify "the greatest good for the greatest number" (Smith, 1979).

From this philosophical heritage, the policy-making process - including land use planning - has adopted a number of values.

Possibility of Comprehensive Knowledge

The confidence in the possibility of complete knowledge has two major implications: a tendency towards determinism in cause-effect analysis - the belief that the future can be determined by a set of actions in the present; and, by corollary, faith in the ability of planners and other policy-makers to forecast with a degree of certainty, derived from the predictive successes of the natural sciences. The result has been that social analysis has also attempted to develop quantitative predictive models.

Comprehensiveness

The classic comprehensive model of rational decision-making holds that, for a given end, all alternative means of achievement can be identified and evaluated, and the "best" one selected. Because of the emphasis upon a comprehensive assessment of means, this attribute is also termed synoptic (Etzioni, 1967; Faludi, 1973a, pp. 150-151).

Linearity

The model is linear in that it advocates a strict sequence of research before policy, and policy before action; it makes clear that action should not be taken without the fullest understanding of potential consequences, and that action should not be taken until the best solution is found (Lang, 1975).

Means above Ends

An emphasis is placed upon means (the "how") above ends (the "why"), deriving from the belief in optimization and efficiency. The classical model holds that ends and means can be separated; the end is taken as given (whether through a normative process or by default), and then alternative means objectively assessed. Because of this characteristic the model is sometimes described as "instrumental rationality" (Klosterman, 1978) or "functional" (Faludi, 1973a, p. 172).

Unitary Public Interest

The model holds to the concept of a unitary holistic public interest, which is greater than, or different from, the sum of all individual wants and preferences (Faludi, 1973a, pp. 171-185). Public policy (for example, land use planning) is perceived as a means of bringing about the public interest. The idea of optimization is related; for example, in the view that an optimal public interest exists and needs only to be discovered by the impartial analyst, using a rational method of inquiry (Lang, 1975). Optimization implies efficiency and cost-minimization, from the influence of classical economics and management science.

The Importance of the Expert

Policy-making - including land use planning - places central importance on the expert to undertake the analysis required for the linear decision-making process. The analyst is perceived as an impartial, detached outsider, able to view the situation comprehensively. In order to achieve this comprehensive viewpoint, it is argued that centrality is required; hence, knowledge and decision-making are centralized (Lang, 1975).

IMPLICATIONS FOR THE LAND USE PLANNING PROCESS

The philosophical approach to scientific inquiry and problem solving of the rational, comprehensive tradition, and the reform orientation of utilitarianism, have influenced decision-making processes in most fields of public policy in western countries. Over the years, both the rationale for, and the practice of, land use planning can be linked to these traditions.

Rationale for Planning

The reasons for which public control over land use has been promoted tend to fall into one of three categories: the need to control negative "externalities" (spillover effects); the desire to provide a public good (a service which would not normally be provided by the private market); and, the desire to redistribute societal wealth - generally, from the more advantaged members to the less so.

Government intervention in land use for any of these three reasons has tended to be deterministic in its application. For example, the reform movement advocated control of urban development as a means of reducing the spread of disease and improving public health in the late 19th century. The movement was deterministic in that efficient and orderly urban design was perceived as a way of reducing social problems occurring in cities (Smith, 1979, p. 200). In a similar vein, the "city beautiful" movement advocated the use of public works construction as a way of increasing the orderliness and aesthetic appeal of cities, and indirectly solving social problems (Hancock, 1967). The garden city concept of planned suburban development was promoted for a variety of economic and social reasons associated with creating a better life and the integration of home, industry and leisure (Hall, 1973, pp. 59-63). Most recently, the "efficiency" movement in planning argues that public intervention in the land market is justified on the grounds of public interest to ensure the "best" possible use of land (Chapin and Kaiser, 1979, p. 53). The traditional comprehensive plan, described below, is rooted in these justifications for planning.

Conception of the Comprehensive Plan

The deterministic background of planning, together with the influence of architecture and engineering upon the discipline, resulted in the view that public goals could be achieved through physical design: the comprehensive land use plan was the mechanism intended to guide the design process. Typically, it was a long range (twenty-five year) master plan comprised of a set of maps describing a unified general physical design for the community at some distant point in the future, and some major policies of a broad and general nature describing this desired future end-state (Kent, 1964, p. 18). It tended to be static because of its engineering and architectural emphasis upon this ideal land use pattern, coupled with a typical lack of specific actions to move towards the design. Comprehensive plans were usually passive, and negative with respect to promoting future development: through land use control development deemed inconsistent with the plan could be rejected; but - with the exception of the city beautiful plans which were oriented to public works - little could be done to actively encourage consistent development.

At this point, it is important to clarify the use of the terms "rational-comprehensive planning" and "comprehensive plan". The former refers to the classic style of decision-making, characterized by linearity, comprehensiveness of alternatives, and so on. The latter refers to the long-range, general, land use plan just described. They are therefore two different dimension of planning (Faludi, 1973a). However, in the traditional model being described here the two dimensions tend to be linked; hence, for purposes of brevity in the remainder of the thesis, the use of either term should be construed as referring to both dimensions of the classic model.

The View of the Planning Process

For many years, writing about planning has taken the perspective of the rational-comprehensive approach. Geddes' "survey-analysis-plan" implies comprehensiveness in the survey, linearity of process, and the planner in an expert role. Classic texts of the 1950's (Kent, 1964, although written in 1957; or Chapin, 1957) prescribed a rational process for the practitioner to follow, stressing qualities such as comprehensiveness of analysis.

The planning process became the focus of increased attention during the 1960's and 1970's, largely due to developments in the study of decision-making and public policy formation, economics, and management science (Beal and Hollander, 1979, p. 160). However, in many ways, changes wrought during this time merely served to emphasize formally the ideals of rationality and comprehensiveness. Optimization still retained its importance as a goal, although the concern was less with the comprehensiveness of the survey and more with the quality of the analysis, particularly the generation and evaluation of alternatives (for example, Lichfield et al, 1975). Methods were developed to improve the precision of forecasts, the comprehensiveness of the range of alternatives, and the quantitative assessment of evaluations.

THE EXPERIENCE WITH COMPREHENSIVE PLANNING

The empirical literature is generally consistent in concluding that comprehensive planning has failed on two counts: the poor record of implementation of comprehensive plans, and - where implementation has occurred, and the results have been evaluated - a frequent incidence of unintended consequences.

The Experience in Great Britain

An early type of plan in Great Britain was the "town planning scheme", provided for in the 1909 Housing, Town Planning, Etc. Act and the 1932 Town and Country Planning Act to guide the layout of new suburban development. However, problems in administration and process meant that these statutes were not well utilized. It was not until after the requirements of the 1947 Town and Country Planning Act that comprehensive plans - now covering whole cities and known as development plans - were actively prepared. In the tradition of "survey-analysis-plan", such plans required a survey to provide a data base, with the plan itself comprised of a report of the survey, a written statement outlining policy proposals about the future manner of development, and a series of maps.

The system of planning established by the 1947 Act in Britain has been the focus of considerable attention. Many writers agree that the system failed in some major ways, one of which was in the approach utilized for comprehensive planning (McLoughlin, 1966, p. 258; Hall, 1973, pp. 378-409; Roberts, 1976, pp. 223-241). As Hall put it, plans could not do what they were intended to do, namely guide development in a local authority for the succeeding twenty years (Hall, 1973, p. 83). Due to lengthy preparation and approval time (for example, the time-consuming local survey and the need for central government review and approval), coupled with rapid, unanticipated societal, economic and demographic change, the plans were often irrelevant by the time implementation was to begin. The real control of development lay, not in the comprehensive development plan, but in "bottom-drawer" plans - unofficial guidelines and policies governing development control (McLoughlin, 1973, p. 124). In practice, therefore, there were few links between the official planning policies and those which were actually implemented. This situation could in theory have been ameliorated by the provision of the Act requiring a review of the plan every five years. However, review proved unworkable: since operational processes for gathering information on development trends during the review period or the impacts of plan policies rarely existed, a review was tantamount to a fresh plan preparation exercise. The lack of updating capability, combined with the delays in preparation, meant that many local authorities were operating under woefully irrelevant plans by the early 1960's (Roberts, 1976, p. 76).

A second aspect of the failure of comprehensive planning in Britain is covered by Hall (1973, pp. 408-409), who concludes that the 1947 planning system had a number of major unintended consequences. His critique is thorough and warrants direct quotation.

> In the intentions of its founders, the planning system was clearly intended to control and guide both the pace and direction of change. In practice the system thus created was too inflexible to cope with an unexpectedly dynamic external world....But the

failure was deeper than that.

> The idealized system was clearly meant to be centralized or unitary in character...dependent on the wisdom and impartiality of professionals, who would interpret the best interests of society as a whole....In practice the system operated through the conflict of local interests, with a stronger element of political intervention than ever seems to have been in the minds of the creators of the system....
>
> The idealized system bypassed the market altogether....The actual system kept the market in being but...did not allow it to work....
>
> The idealized version relied on the massive creation of planned communities, designed and realized by strong comprehensive planning agencies....The actual system has relied on an interaction between the planner, who has a negative control (and some positive influences on design), and the developer, who must take the initiative on the basis of his understanding of the demands of the market....
>
> Overall, the idealized system obviously had a strong element of planning for the least fortunate; urban containment, and the creation of self-contained and balanced communities, were supposed specifically to help the less advantaged members of society. But in practice, the system seems almost systematically to have had the reverse effect: it is the most fortunate who have gained the most benefits from the operation of the system, while the least fortunate have gained very little.
>
> Not all of this can be laid at the door of the local authority planners and their political masters - though a substantial part of it can be attributed directly to the operations of planning control....

These observations provide powerful evidence of the inadequacies of the comprehensive planning approach, in particular, its inability to monitor environmental change and policy impacts, and to be responsive in the face of major unintended consequences.

The 1947 system was substantially overhauled in 1968, with an increase in flexibility as a primary objective. The development plan was replaced with a two-tier planning system of a general, policy-oriented structure plan (requiring central government approval) and a local detailed plan. However, implementability still remains a problem, with the result that plans lack credibility, become outdated, and are unresponsive (Roberts, 1976, p. 128 and p. 149; Healey, 1978, p. 119).

The Experience in the United States

In the United States, the preparation of city plans had been popular since the "city beautiful" movement of the early twentieth century and its emphasis on an aesthetic vision of the city. These plans were heavily dependent on major construction of public works (boulevards, parks and civic squares) to enhance urban design; lack of funds meant that few were ever implemented in more than small part (Walker, 1950, p. 432).

The "city beautiful" movement emphasized physical order as a means of achieving social order, a deterministic emphasis that has remained strong in subsequent styles of planning in the United States. Planning has therefore created expectations that it can solve urban problems through large-scale physical design policies; its inability to do so has been a major source of criticism (Banfield, 1974; Rondinelli, 1975, p. 13).

In the 1920's the national government published model city planning legislation which was eventually adopted by most states. Comprehensive plans were provided for, although their role and nature were not made clear. In particular, the link between planning and the land use control mechanism of zoning was not defined. Consequently, although many cities prepared comprehensive plans in the following years, the real power lay in zoning, which, it appeared, did not have to be linked to the comprehensive plan. Comprehensive plans thus were of limited legal effect in development decision-making (Mandelker, 1976, pp. 900-909). This question of the link between plan and zoning is discussed in greater detail in Chapter 3, in the context of implementation.

After 1945 the United States, like Great Britain, reemphasized urban planning; through the passage of the 1949 Housing Act, and subsequent amendments, comprehensive planning was given recognized importance as a requirement of eligibility for urban renewal funds. Federal financial support was made available for the preparation of comprehensive plans with the result that, in the late 1950's, many city plans were drafted. However, the results of this activity were not encouraging: critics have claimed that very few American cities ever developed according to the concepts of their master plans, despite the expenditures of vast sums on planning exercises (Walker, 1950, p. 432; Altshuler, 1965, p. 419; Rondinelli, 1973, p. 13). The problems include the static, goal-oriented, master plan approach which, because of long preparation time, resulted in out-of-date documents; the influence of market forces outside planning control; the irrelevance of long range, general policy statements to the short-term decision-making process; and the frequency of unanticipated social and economic consequences from land planning policies (Beal and Hollander, 1979, p. 160). For example, one planner, writing about a comprehensive planning exercise in Cleveland, declares that "much of the planner's stock-in-trade was regarded as virtually meaningless in the context of the City's ills...and to prepare such a plan would be irrelevant if not counterproductive" (Krumholz et al, 1975, p. 298). In its place, the planners created an issue-oriented policy approach aimed at ameliorating some of the more pressing problems in Cleveland. In another example, Honolulu planners concluded that the general plan for their city was ineffective. The cumbersome amendment process and the consequent inflexibility meant the plan was an "obstacle to change rather than a guide to growth" (Rider, 1978, p. 26).

Canadian Experience

Most provinces in Canada have planning statutes which provide for, and in many cases require, community plans of varying degrees of comprehensiveness in their coverage. These plans are to articulate policies for subsequent implementation through the development control system (Rogers, 1980, p. 45).

Few favorable evaluations of the comprehensive plan can be found in the literature. A study of official plans for municipalities in Metropolitan Toronto found that they tended to state conflicting goals as though all were capable of achievement, without any means of weighing them during a decision process (Lang and Page, 1973, p. 19). A Vancouver commentator on the planning process used in regional issues criticized planning regulations in other provinces which "too often and very unfortunately leave the planner no other concept towards which to work than a comprehensive end-state plan depicting that glorious frozen moment in the future when the urban area will have solved all its problems and remedied all social ills" (Lash, 1976, p. 21). The process to review planning legislation in Ontario (Ontario Planning Act Review Committee, 1977) exposed much dissatisfaction with provisions of the Act respecting official plans, especially the statute's preoccupation with comprehensiveness, which contributed to lengthy provincial approval procedures and furthered the ineffectiveness of such plans (Cullingworth, 1978, p. 64).

A survey of twenty-seven Canadian municipalities in the fall of 1980 revealed at least one city (St. John's, Newfoundland) which had dropped all pretense of using its comprehensive plan. The blueprint-style of master plan was said to be of no value in guiding development decisions, and the city therefore is using a "problem-oriented, rather than a goal-oriented" approach, reviewing individual applications for development on their own merits.

Only one consciously evaluative study was revealed by the survey - a 1979 report by the Nova Scotia Department of Municipal Affairs documenting an evaluation of the 1973 Halifax-Dartmouth Regional Development Plan. The study had involved open-ended interviews with those familiar with the plan or some of its components. Three strengths were identified: it had designated areas for urban development; it had identified the need for regional parks and designated sites; and its preparation and implementation had fostered communication among agencies. However, it was also characterized by some critical weaknesses: population forecasts had erred on the high side, and consequently a number of urban services were underutilized; the regional parks system was never implemented; and the plan's policies in some areas, such as transportation, social services and the environment, were out of touch with current values.

Conclusion

In British, American and Canadian experience, the problems experienced with the comprehensive, long-range plan have revolved around its inflexibility and lack of responsiveness to change. Throughout the seventy years of its history, comprehensive planning has been an idea incapable of implementation. The basic tension between a static inflexible plan, prepared through a lengthy, comprehensive exercise and therefore out-of-date by approval time, and a dynamic, changing and unpredictable environment has proved to mean the failure of comprehensive planning. There can be little argument on this point; instead, it serves only to stress the need to understand the theoretical explanations which have been advanced. The remainder of this chapter is devoted to this task.

THE LITERATURE OF PLANNING THEORY

Overview

Numerous reviews of planning theory have attempted to impose some structure upon a diverse literature.

Faludi (1973a) has distinguished three principal styles of planning, each of which differs in some major dimension from the rational-comprehensive model. Process planning is contrasted with the blueprint style of the classic model and encompasses an evolutionary approach, with continual adaptation of planning programs in response to environmental stimuli. Disjointed incrementalism - a decision-making style wherein possible courses of action are identified sequentially - is opposite to the synoptic element of the traditional model. Finally, normative planning, the application of rational choice to ends as well as means, is distinguished from the classic model which assumes the end as given.

Friedmann and Hudson (1974) identify four major traditions of of planning theory:

(1) rationalism: planning theory and style concerned with how decisions can be made more rationally;

(2) organization development: planning theory and style which focusses on change within organizations as a key for bringing about societal change, and is thus strongly action oriented;

(3) empiricism: less normative than other fields of planning theory, this tradition has focussed upon actual studies of planning behavior; and

(4) "philosophical synthesis": members of this tradition have reached beyond the boundaries of their own discipline to achieve an integrated view of planning as a social process. Friedmann and Hudson include in this tradition both advocates of planning and its critics.

A few years later Hudson (1979) developed a different scheme of classification:

(1) synoptic: the rational-comprehensive approach.

(2) incremental planning: disjointed incrementalism.

(3) transactive planning: a style developed by Friedmann (1973) emphasizing planning as a constant learning process among planner, politician and citizen in a decentralized milieu, and directly linked to action. Transactive planning rejects the classic model's view of a linear process orchestrated by an impartial planner.

(4) advocacy planning: a style developed out of concern that the comprehensive rational model's conception of a unitary public interest was misleading, and that its application in practice was exacerbating social injustice. Rather than attempting impartiality, the planner actively advocates on behalf of specific interests.

(5) radical planning: planning styles which are associated with critiques of the existing societal system and tend to be linked with normative calls for action.

While this sketch has dealt only with classification schemes arising out of the planning literature, other disciplines such as management science have also generated various ways of distinguishing among the various planning approaches (see, for example, Trist, 1978). It is apparent that no one single scheme can adequately structure the literature; to develop a revised model of the planning process, a more useful approach is to organize the criticism around each of the model's main features, outlined at the beginning of the chapter.

Comprehensive Knowledge

The assumption that comprehensive knowledge is possible has been criticized by a variety of thinkers (for example, Lindblom, 1959; Rondinelli, 1973). The environment is seen as a complex social system comprised of an intricate web of interlocking, non-linear cause-effect relationships. Because of the complexity of these linkages, and because of the dynamic and open character of the system, total knowledge is never possible, and the future can be forecasted only with varying degrees of probability (Chadwick, 1978, Ch. 7). The question of comprehensive knowledge has two major implications for the planning process, the first direct, and the second indirect.

Uncertainty. Because of the impossibility of comprehensive knowledge, past plans have been characterized by poor forecasts and misunderstood policy effects, and have in consequence been discredited. Furthermore, as pointed out earlier, the plans themselves generally were too inflexible to adapt to changing circumstances. For some time, planners responded by developing quantitative tools to increase the accuracy of their forecasts. Recent analysts, however, especially those with a systems perspective, have stressed the importance of confronting and analyzing this uncertainty, and of adopting planning styles which can accept it (Friend and Jessop, 1969, pp. 101-135).

Uncertainty has several implications for the planning process. First, flexibility can only be achieved through developing a continuous planning process highly dependent on feedback from the environment - feedback on policy impacts, emerging trends, or shifts in values. In order to be responsive to this feedback, plan policy should be developed for several time horizons at varying levels of specificity (Faludi, 1973a, pp. 136-148; Chapin and Kaiser, 1979, p. 90).

Second, this adaptive planning style poses a real dilemma for the planner who must balance flexibility and responsiveness with the need for commitment. While there is widespread agreement on the need to improve the adaptive qualities of planning for the continuing survival of society (for example, Trist, 1978; Michael, 1973), many policy decisions represent irreversible commitments.

Finally, uncertainty must be accepted and not used as a reason for avoiding action. A number of observers argue that planning and public policy-making need to develop ways of experimentation: acting on the basis of partial knowledge, being open to the possibility of error, and following through with evaluation (for example, Friend and Jessop, 1969, p. 112; Michael, 1973, Ch. 6; Trist, 1978).

Requisite Variety. While comprehensive knowledge about the urban system is an unattainable goal, it is important to aim for plans and processes with sufficient variety to match the urban system. Requisite variety refers to the complexity, or the number of potential states, of a system. The real world system, constantly changing, is capable of a vast number of potential states. A plan which is not capable of generating sufficient variety to match this complexity (such as a blueprint end-state plan) cannot hope to influence the system. The ability to generate variety applies to the plan's approach to forecasting, analysis of existing issues, development of policies, and methods of implementation.

Another principle stemming from the law of requisite variety states the need for reliability and redundancy in the controlling mechanisms, to minimize communications misunderstandings and ensure against failure. This is best achieved by providing the planning system with as many communication links as possible, both within itself and with the urban system. The traditional comprehensive planning model is inadequate in this area, since information is received infrequently from the environment (for instance, a massive survey once every ten years); it is frequently retained in only a few central locations in the organization; and, there is often only limited communication between those who prepare the plan and those who implement it.

Comprehensive Range of Alternatives

Critics point out that in planning policy problems, the number of alternatives is indeterminate. In practice, planners and other policy analysts generate alternatives sequentially, rather than comprehensively, and have only a limited evaluation capacity. The tendency is to satisfize - accept the first satisfactory solution - rather than optimize (Simon, 1945, pp. 99-100; Lindblom, 1950, p. 160; Friend and Jessop, 1969, pp. 116-117; Rittel and Webber, 1973, p. 164).

Lindblom (1959, pp. 154-155) therefore proposes the "successive limited comparison" style of decision-making, whereby only policy alternatives that differ incrementally (that is, in small degree) from policy currently in effect would be considered. This approach implies a limited reliance on theory for the generation of alternatives; it also implies the need for a feedback system to obtain empiric data on the effects of existing policy. It has been termed a conservative, status quo approach to public policy-making, which Etzioni (1968, p. 272) argues prevents innovation and perpetuates existing imbalances in the distribution of power and influence between the strong and the weak.

The debate between incrementalism and comprehensive planning reflects fundamental differences of values and is therefore essentially unresolvable. At issue is the desirability of system maintenance (and perpetuating both the injustices and the benefits of the existing system) versus taking the risks of system change. Given this opposition between the two poles of conservatism and reformism, a variety of "middle range" decision-making models has been proposed (for example, Etzioni, 1967; Cartwright, 1973; Stuart, 1969). Perhaps the one which has found most favor with theorists is Etzioni's "mixed scanning" approach, which he describes (1968, pp. 282-283) as "less exacting than the rationalistic one but not as constricting in its perspective as the incremental approach, not as utopian as rationalism but not as conservative as incrementalism, not so unrealistic a model that it cannot be followed but not one that legitimates myopic, self-oriented, non-innovative decision-making".

Mixed scanning combines a broad overview of alternatives with a more detailed, sequential analysis of options, comparable to Lindblom's successive limited comparison method. The effectiveness of the broad scanning activity depends upon human intuitive ability to perceive pattern and order, and to think laterally and creatively. The sequential analysis is consistent with Lindblom's observation that people prefer this linear style in practice. Etzioni draws an analogy with a chess player who focusses incrementally on the game after every move of his opponent, but every so often stands back and strategically reviews his position, a step that is essential to ensure his continuing survival in the game.

More specifically, the main components of mixed scanning are:

(1) A strategic level of consideration of as many alternatives as come to mind, during which evaluation takes place briefly at a superficial level, and then in a more intense manner sequentially, rejecting each option or developing it further until only one remains.

(2) An analytic stage for ordering the steps required for implementation so that the costly and less reversible decisions arise later in the process than those which entail less commitment.

(3) An implementation review program, involving scanning and review of programs at varying levels of detail, to see if they are "working" and to determine if there are deeper underlying difficulties not superficially apparent.

(4) A program of resource allocation to determine the proportion of effort to devote to the various levels of scanning.

Mixed scanning attempts to meet the need for a comprehensive coordinated view of alternatives and their inter-relationships, without succumbing to the dictates of comprehensiveness. Because it also recognizes the limitations of the human mind to perceive complexity, it is a type of "bounded" rationality, in the sense that Simon (1945) uses the term. Through mixed scanning, planning policy can be adjusted for different time horizons, with differing levels of specificity for each.

As has been indicated throughout this chapter, the dilemma of flexibility versus specificity is the most basic one in the planning process. For example, the debate on whether planning control restricts freedom ultimately comes to rest on the operational question of flexibility of the control instrument - zoning, for example. Many theorists agree with Etzioni's approach to public policy and control, termed "framework control" by Faludi (1973a, p. 284): setting a framework within which the object of control is allowed to operate, as distinguished from prescriptive control which attempts to determine every detail of behavior. In planning practice, the mixed scanning approach to plan preparation, implementation and review, coupled with degrees of policy specificity varying with time horizong, offers hope for the possibility of framework control.

Linearity

The classical model's emphasis on linearity (research-plan-action) has been identified by some critics as a source for the poor implementation record of comprehensive plans (Perin, 1967; Friedmann, 1971). In the arguments of systems theorists, a planning process must provide continuous control of the urban system. This control cannot be obtained through a model which delays action, as is implied by research-plan-action. To explain: an urban environment is viewed as a system, dynamic and constantly changing in a process of adaptation to external and internal stimuli. Adaptation involves continuous learning and adjustment; hence these two concepts are fundamental to establishing any planning system to help guide the process.

The heart of the planning system is therefore not the comprehensive plan - as the traditional view implies - but rather the continuous action mechanisms of the planning agency. These include those tools available to influence or control the use of land and guide urban development. Typically, they include regulations regarding the use of land, and actions such as investing in public works. In the past, both of these control processes have occurred without reference to a comprehensive plan. The reverse has also held true: the policy statements of comprehensive plans have not been linked to these action mechanisms and therefore cannot be implemented.

The critical role of implementation and action in the planning process is reflected in current theory which, influenced by systems thinking, views the process as circular rather than linear (Friedmann, 1974; Solesbury, 1974, p. 44; Chapin and Kaiser, 1979, p. 77). The three generalized activities of research, planning and action are seen to occur simultaneously, or in a recurring iterative fashion. For example, alternative policies for the plan might be redefined on the basis of subsequent evaluative information. Or, some critical issue might require action even while research programs are still underway.

An action orientation is reflected in the writings of some of the major-scale, change-oriented theorists such as Friedmann. It is also reflected, however, in those whose perspective is more akin to Lindblom's: that small-scale incremental change is a more feasible objective. Rondinelli, for example, believes that a realistic alternative to comprehensive planning is "policy planning", a "political interaction view of planning whereby the planner is involved in the heart of conflict resolution, identifying strategic factors, and evaluating compromise positions and instruments of manipulation and persuasion" (1973, p. 19). The planner's purpose is not to recommend broad policy changes as a result of comprehensive alternative scenario analysis, which Rondinelli views as having limited chance of approval by politicians, but to influence current decisions by pointing out how to "mobilize resources to move the urban area marginally away from unsatisfactory social and economic conditions" (p. 19).

While this section has stressed an action orientation, it must be clear that information, research, and theory development are nevertheless critical to the planning process. The systems model of continuous control depends upon feedback of information from the environment, transferring it within the planning system, and using it. The point is more that information and research should not become ends in themselves; the real end is action, and action, to be effective, must be based on solid understanding of the interaction of the urban system, obtained from monitoring and performance evaluation.

Similarly, the model of planning as continuous control and learning, and the emphasis on action, do not negate the importance of a long range viewpoint, the ideals of comprehensiveness and rationality, or the compromise acceptance of bounded rationality. The mixed scanning model described in the previous section required periodic strategic level scans to evaluate overall system performance and direction, consider wide-ranging alternatives, and act upon the conclusion reached during the scan.

The Relationship of Ends and Means

Comprehensive plans are usually characterized by a set of lofty goal statements, the derivation of which is never clearly spelled out, nor the means of their achievement (Lang and Page, 1973, p. 19). There is a tendency for the goals to center around utilitarian concepts of "the greatest good for the greatest number". In practice, however, policies have often had effects far different from those intended, as the example from Hall demonstrated. The real goals which influenced decision-making - implicit and hidden in the process - tend to be far different from those expressed in plans - multi-faceted, conflict ridden, even mutually exclusive.

Part of the problem is the difficulty of separating ends (goals) and means (a given development policy or decision). It is pointed out that decision-makers frequently adjust goals according to the costs of achieving them, rather than adjusting means to ends (Lindblom, 1959, p. 158). This may be in part a function of human behavior, and in part a function of the complexity of the urban system, and uncertain cause-effect knowledge.

Nevertheless, goals do exist: action is seldom taken without intent, even though purposes may be conflicting (Lang and Page, 1973, p. 27). The discrepancy between goals in plans and in actual decision-making has led some authors to examine the implications for our concepts of social justice (Klosterman, 1978; Smith, 1979). Many have argued the need for a more rational approach to clarifying values and balancing goals during decision-making (Altshuler, 1965; Friedmann, 1971; Faludi, 1973a; Lang and Page, 1973; Klosterman, 1978). Such changes in the planning process, and in plans themselves, could lead to a more solid basis for examining the implications of planning practice to social justice (Klosterman, 1978).

The argument about the interrelationship of ends and means is tied to the criticisms of the linearity of the process, in the sense that a circular process can accommodate redefinition of goals in light of information about means; in fact, it is frequently suggested that the goal definition/problem identification activities of a planning process should absorb a significant portion of resources (for example, Trist, 1978). But, rather than the data gathering exercises of the past, this activity should encompass a circular process of dialogue, information exchange, evaluation, further dialogue, and so on. This would be a mutual learning exercise of the type advocated by Friedmann (1973, pp. 183-185), and will be discussed further in the next section.

The Public Interest and the Role of the Planner

Another cause of difficulty in the implementation of comprehensive plans lies in the unitary view of the public interest espoused in the classical model, which critics have argued leads to idealistic, overly general plans, unable to guide decision-making (Altshuler, 1965, p. 303), or to compromise ones to which none of the plurality of interest groups in the community can commit itself (Rittel and Webber, 1973). This situation is exacerbated by the lack of involvement of those responsible for implementation of plan policy, since in the classical model, policy is developed by an impartial, expert planner.

A major criticism is that the public interest does not exist only to be "discovered" by the expert planner, but rather is being continuously defined and redefined through the political decision-making process (Altshuler, 1965, p. 303 and 319). This line of argument points to the importance of clarifying, in the policy-making process, the manner in which interests are weighed and balanced (Altshuler, 1965, p. 453).

A slightly different perspective has been taken by those who call for planners to become advocates, acknowledging their lack of objectivity and becoming actively involved in the political process, advocating policy on behalf of a specific interest or group (for example, Davidoff, 1965; Rondinelli, 1973; Krumholz et al, 1975).

Whichever role for the planner is preferred - clarifying interests or advocating them - there can be no doubt that he needs to learn more rapidly about goal preferences, issues, and the impacts of policies. Systems for obtaining feedback are essential to this process:

> The policy analyst...is not a man having a superior knowledge in some field, but a superior ability to learn....But...unless potential client groups can be taken along on this learning trip, the expert's models will...simply remain models. Expert and client must share in the learning experience....
>
> Mutual learning involves a symbiosis of policy analysis and client groups that should go beyond a single interaction and extend to a continuing relationship....In a situation of accelerated change and only limited autonomy, this will require a tightening of the feedback loops of information about change in both internal and environmental states, a general attitude of openness towards the future, and a quickening of the response to new learning.
>
> (Friedmann, 1971, p. 320)

A wide range of critics, Friedmann included, have argued that a changed role of the planner is particularly important given today's dynamic, open environment in which planning is taking place. While past social systems may have been equally complex, they were not changing as rapidly as that of today. In situations of rapid change, the argument runs, fluid processes and structures are necessary. A centralized technical analyst role for the planner is therefore inappropriate. In this kind of environment,

> the public interest model of central planning has all but evaporated...and planners are increasingly found in the thick of the action itself, where expert knowledge and politics, decision and implementation are inextricably intertwined.
>
> (Friedmann, 1971, p. 320)

Friedmann developed these ideas in his 1973 theory of transactive planning, contending that American society needs a heightened "learning ability" and advocating the adoption of a transactive style of planning, in which the acquisition and use of scientific and technical knowledge would be humanized, and the whole learning process closely integrated with an organized capacity and willingness to act. In his view, these changes are essential if the capacity of American society to respond effectively to the demands of societal change is to improve. Transactive planning confronts the factors which he believes responsible for this non-responsiveness: lack of feedback of meaningful information to individuals in the system; a high degree of centralization in the decision-making system; and the increasing separation of policy, action and impact, in time, space, and hierarchical distance.

Numerous other writers have reached similar conclusions (for example, Schon, 1971; Michael, 1973; Trist, 1978). They are part of what Nelson (1976) refers to as the "literature of crisis and transformation": a body of writers who argue the need for some major changes in our professional roles if we, as a society, are to preserve our "precarious and finite environments" (Michael, 1973). Many of these writers argue from a systems perspective and emphasize the importance of learning from information exchange and feedback, followed by a direct and immediate link to action. Michael (1973, p. 280) contends that

> like the other requirements for long range social planning, feedback responsiveness is a necessary but not a sufficient condition. But when its ramifications are recognized, it seems to be nearer than any other requirement to being a sufficient condition as well.

Systems theory also provides the literature of crisis and transformation with arguments for decentralizing the societal planning and control process. From a systems and ecological point of view, centralization creates instability; a system is more adaptable if its component parts have the knowledge and ability to influence its regeneration. Thus, the argument runs, a system of continuous control and learning can only be created in one that is decentralized, where information, power and responsibility to influence are diffused throughout (Trist, 1978).

One might well ask at this point how this can be possible; system control and decentralization of authority appear to be mutually exclusive concepts. The traditional debate has been that planning control is incompatible with individual freedom; this has been the criticism of writers such as Popper, who see in central control the possibility of increasing totalitarianism. But, the view presented by the systems line of thought is that in fact a control system is an essential part of the operation of the dynamic system of the urban environment, and that, furthermore, it is possible for control to exist alongside a fair degree of individual freedom of behavior (Chadwick, 1978, p. 361). The crucial nub of the concept is contained in the definition of control, which is seen as having two components, a centralized one and a decentralized one.

The centralized component of control is what Faludi refers to as framework control: the general policies agreed upon by elected representatives as being desirable for individuals to conform to, and the actions, regulations and enforcement procedures developed to achieve them. The decentralized component of control is provided by individuals who voluntarily achieve a consensus on societal purposes and willingly - without need for authority or force - behave in a manner to achieve these goals. This two part control system is a simplistic interpretation of Etzioni's (1968) "active society", paraphrased by Breed (1971) as a self-guiding society. Effective societal guidance can only be brought about if both components of control exist - the downward setting of direction and purpose, and the upward building of consensus; the downward development of government programs, and the upward spiralling of individual initiative; the downward setting of regulation, and the upward filtering of willingness to conform.

In land use planning, this view of control has led to replacing the term "planning" with "societal guidance", implying - in addition to the traditional government actions of public investment and land use regulation - increased dialogue, information exchange and feedback among elected representatives, citizens, and the technical planner; and, an increased role for citizens in formulating and implementing policy.

IMPLICATIONS FOR THE PLANNING PROCESS

The foregoing review has raised a variety of considerations which, together, point toward a revised model of the planning process. These are summarized below.

Purpose

The planning system can be viewed as one of the urban system's processes for guiding and controlling change in the system. The purposes for such control are determined by a combination of downward exercise of authority by governmental structures, and upwards building of consensus among citizens.

Assumptions

A planning system must be built on two key principles:

(1) Rather than aiming for an idealized construct of comprehensiveness and rationality, a more realistic approach is to aim for a degree of rationality, and employ a process such as mixed scanning.

(2) Rather than aim for total knowledge, a planning process should accept uncertainty. This implies that action need not be avoided because of insufficient information. Rather, an experimental, error-embracing approach is necessary, since it is only in this way that action can occur without full and comprehensive knowledge of a given issue.

Process

(1) A planning process must be regarded as one of continuous control and learning, involving broad framework controls and constant action, feedback about the effects of that action upon the environment,

and subsequent adjustment of the action.

(2) The process of continuous control and learning can only be effective - that is, guide change in the urban system - if it includes a strategic scanning activity. This means regularly "stepping back", determining and evaluating the direction of the system, and then developing policies, regulations and actions of varying degrees of specificity to bring about any desired changes in the system. The strategic scan replaces the comprehensive plan; it is similar in intent, but only a selected array of key system elements is examined.

(3) Following from (1), a process of continuous control requires implementation procedures (land use regulation or capital investment, for example) to be placed at the heart of the process. Without implementation, planning is totally ineffective, and therefore strategic planning must focus directly upon the regulatory and action system.

(4) The third implication of (1) is that continuous learning requires that critical importance also be placed upon feedback and monitoring procedures. Strategic planning must therefore establish these mechanisms.

(5) A continuous planning process of learning and control (including the strategic scan process) requires a constant stream of value judgments about system direction and the "public interest", weighing the priority to be placed on various goals and objectives. The planning system must therefore contain clear procedures by which the various interests concerned with a given decision can participate, clarify their perspectives, and work towards building a consensus.

The Plan Document

The literature provides clear direction that the preparation of a comprehensive plan document should be given less emphasis in favor of developing a continuous process of control and feedback. However, opinion varies as to whether "less emphasis" should be taken to mean total rejection.

Chapin (1979, p. 85), long an advocate of comprehensiveness, still emphasizes the value of a comprehensive land use plan which would be both a description of proposed spatial arrangements of land uses, and an outline of a course of action for the local government to take. This land use plan would be for a period of twenty to twenty-five years, and hence would be of a general nature, including broad objectives statements as well as maps. This general plan would then be followed by more specific policy documents (a five to six year land development plan and a one year program of improvements), each with a spatial and a programmatic aspect.

At the other extreme can be placed those who claim that a comprehensive plan and all of its various more specific follow-up documents can never adequately envisage land use issues which might arise. They therefore stress instead the continuous involvement of the planner in the decision-making process, participating in conflict resolution, negotiation and coalition building. In this environment, the planner would have little opportunity to prepare a policy-synthesizing document; rather, he would constantly be at the heart of the processes by which policy was being formed, always focussing upon issues.

Other planners fall between these extremes. Faludi (1973a) and Chadwick (1978) do not discuss questions such as the contents of a plan document, nor its degree of specificity, but neither writer eschews the document completely. "Bounded rationality" and the ideal of comprehensiveness through strategic overviews suggest the need for some sort of summary of existing intentions and policy commitments, even if only as a source of information for the citizen. McLoughlin (1973, p. 262) advocates a much stripped down version of the comprehensive plan, turning it into essentially a goals and objectives document, the adoption of which publicly commits the local council to its intentions. Efforts would then be directed towards improving the process for making decisions subsequent to plan adoption. Candeub (1970) advocates two levels within the plan: a "general guide plan" to provide the policy base for the regulatory system, but brief enough to be understandable; and, a component which he terms "actions to improve our community", adoption of which create the basis for public commitment to programs to bring about the strategy or philosophy of the general guide plan.

However, as the discussion of the question of public interest and ends and means illustrated, a plan document outlining only goals and policies is likely to be ineffective. What is most critical is that the planning system provide means for weighing conflict over goals and policies during processes of public decision-making. The plan document must provide the framework for this continuous system of goal formulation.

In summary, the lessons of the past are that a plan document must be brief, and it must be prepared quickly. It should be built upon existing policy, and should provide the basis for reviews and scans to determine the effects of policies. The purposes for the policies therefore need to be clearly spelled out. And, finally, the plan should outline exactly what actions are required for its execution. "Execution" is used here in the broadest sense to refer to the plan's application in continuous decision-making about the use of land. Because the plan will be brief, the directives will be of a general nature. However, they should cover the links between policy and regulation (for example, through a series of more detailed plans); the links between policy and programs; the nature of mechanisms for feedback and learning; and, the nature of mechanisms for resolving conflict and defining the public interest.

While these points suggest that the views of those in the middle of the continuum are more appropriate, no generalizations about plan contents can be made. The strategic and problem-oriented approach means that each community's plan would contain its own unique selection of topics to be covered, with policy statements varying in specificity according to the issue and the role and implementation powers of the local government.

Organization

The effectiveness of control and learning processes is tied to the manner in which the planning organization is structured, particularly in situations of rapid environmental change. Specific factors include:

(1) Information: the type of organization structure influences the appropriateness, reliability, interpretation, flow and use of information.

(2) Requisite variety: organization structure influences

whether the planning process has sufficient variety, redundancy and reliability.

(3) Commitment: the structure of the organization - in particular, the role of different units in the planning process - influences the degree to which its component parts are committed to implementing and monitoring planning actions.

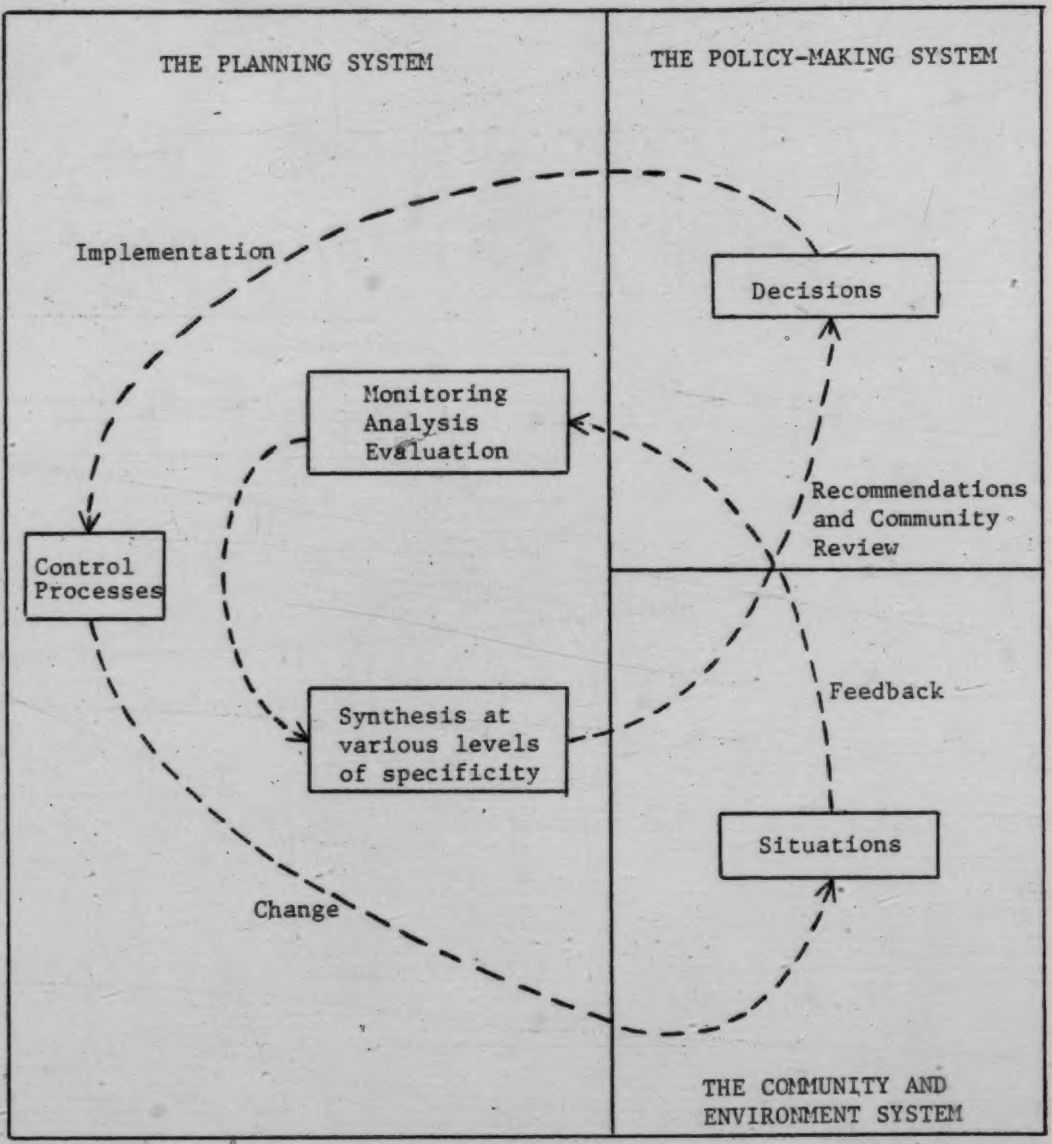
A MODEL OF A PLANNING SYSTEM

The conclusions synthesized in the previous section lead to the model of a system for planning depicted in Figure 1. The model is derived from work by Solesbury (1974) and Ferguson (1975). Planning is defined as three broad processes: control, monitoring, and synthesis at varying levels of specificity. The control processes (regulation and action) are continuous and thus are placed in the outside of the diagram. While feedback may also be continuous, the interpretation and synthesis functions occur, by definition, in stages and are thus shown in the inner loop. The diagram illustrates the interaction of the three systems - planning, the community and the environment, and policy-making. However, it gives only a hint of the complexity of the processes of information exchange and mutual learning during the stages of feedback, scanning and formulation of recommendations. Figure 2 therefore attempts to describe these flows in greater detail.

The scanning process illustrated can be applied for varying levels of specificity, although a scan focussing in detail on only one issue would undoubtedly delete many steps. The number and type of different scan levels would be dependent on such factors as resource availability and the magnitude and rate of change in the environment.

Figure 1

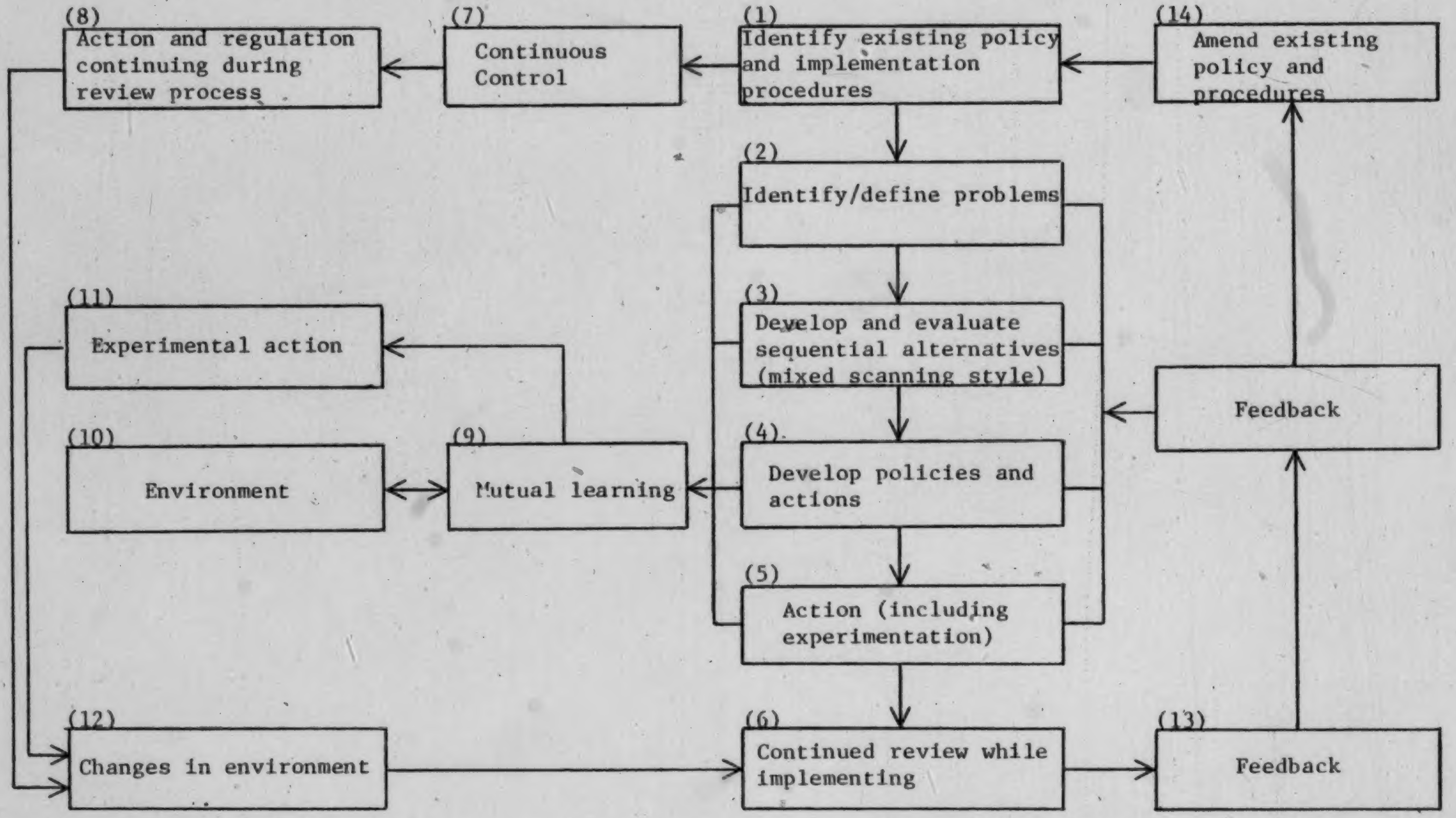
A Model of a System for Controlled Environmental Change


THE PLANNING SYSTEM
THE POLICY-MAKING SYSTEM
Implementation
Decisions
Monitoring Analysis Evaluation
Recommendations and Community Review
Control Processes
Feedback
Synthesis at various levels of specificity
Situations
Change
THE COMMUNITY AND ENVIRONMENT SYSTEM

Source: Derived from Solesbury (1974) and Ferguson (1975)

Figure 2

Generalized Review Process to Employ during a Scan


(1) Identify existing policy and implementation procedures
(2) Identify/define problems
(3) Develop and evaluate sequential alternatives (mixed scanning style)
(4) Develop policies and actions
(5) Action (including experimentation)
(6) Continued review while implementing
(7) Continuous Control
(8) Action and regulation continuing during review process
(9) Mutual learning
(10) Environment
(11) Experimental action
(12) Changes in environment
(13) Feedback
Feedback
(14) Amend existing policy and procedures

Because of the extreme circularity of the review process, it could in theory be initiated at any point. Generally, though, it would start at Box 1, the identification of existing relevant policies and procedures; this would set the parameters of the review. However, if an agency were scanning for unexpected policy impacts, the process would start at Box 2.

While there is a linear flow of activity from Boxes 1 through 6, the diagram emphasizes that there is also a simultaneous lateral flow. First, the fact that action and regulation will normally continue during the review process is emphasized (Boxes 7 and 8). Second, at every step in the process the interaction of the planning agency with its environment in a mutual learning process is illustrated (Boxes 9 and 10). But, this process is more than learning, for, as shown, the possibility exists for "experimental action" (Box 11), causing, along with the action system (Box 9), changes to the environment (Box 12), which are then subsequently evaluated (Box 6). Furthermore, the results of evaluation (Feedback, Box 13) can be used in any of the linear steps and the whole process is iterated again. Finally, the feedback can be used to amend existing policy (Box 14).

The process illustrated in Figures 1 and 2 is consistent with the guidelines provided by the review of the literature, emphasizing, as it does, continuous control and review, the circularity of feedback, strategic level scans, the possibility for experimental action, and the mutual learning relationship with the environment in a continuous decision-making process. However, the model requires elaboration before criteria could be developed to evaluate current planning efforts. This provides the subject of subsequent sections of the thesis.

Chapter 3

LINKING THE STRATEGIC PLAN TO CONTINUOUS CONTROL: IMPLEMENTATION SYSTEMS FOR LAND USE PLANNING

To apply the model of a planning system in the evaluation of planning practice, effectiveness criteria must be defined more specifically for the two key activities of control and monitoring. In this chapter, the focus is upon control. The chapter begins by examining the nature of the link between policy and implementation, and sketches some of the problems of recent years. Current views towards implementation are then reviewed briefly. The chapter concludes with a synthesis of conditions necessary for effectiveness in implementation.

THE POLICY-IMPLEMENTATION LINK

As established in Chapter 2, an implementation system is that set of actions, regulatory procedures and programs through which the municipal government intervenes in the urban land market to control the use of land. It is through these actions that the community's intentions and desires are ultimately reflected. It follows, therefore, that if community objectives are set out in a policy document such as a comprehensive or strategic plan, then actions taken through the implementation system must be consistent with, and put into effect, those intentions.

In past practice, however, land use planning policy has been poorly linked with implementation. First, many of the lofty policy statements have been too far-reaching for the narrow array of implementation tools available for plans. And, conversely, the practice of land use control has frequently operated independently of the intentions of the plan, often under separate legislation or under the direction of different agencies. Almost universally, planning departments are structured with a split between the plan-making and implementation functions. Those who wish to see their plans implemented cannot look to land use control for much assistance; and those in development control who wish policy guidance cannot look to plans for assistance. Thus, the policy-implementation problem has two perspectives, both of which must be reflected in criteria for an effective control system.

Implicit in all this is the assumption that the implementation of plans is a desirable goal. The position that a plan, once prepared, must be implemented, stems from the view that:

(1) plans are right or correct: they reflect the public interest, and their policies are grounded in a solid understanding of urban systems; and

(2) plans are comprehensive and have covered all aspects of any issue which may arise in the future.

Yet these two propositions are clearly not possible. There is every likelihood that components of the plan may prove inappropriate or inadequate in the future and should therefore not be implemented. This point has major ramifications for the way that the link between plan and implementation is viewed.

One alternative is to view the plan as advisory only, with a separate set of laws passed for daily regulation of land use (Brooks, 1979). This gives flexibility to the implementing system in that there is no requirement to adhere to a plan, but it also means that plans and policies are not necessarily translated into programs. In the United States, advisory plans have frequently been prepared by agencies separate from the elected council - an independent planning commission, for example. Thus there is a complete separation of policy and implementation. The injection of outside views can result in imaginative and innovative plans which can have considerable impact if the government decides to implement them: for example, Abercrombie's plan for Greater London or Burnham's for Chicago. But there have been many more instances of the opposite holding true.

A second alternative is to take the view that if a plan is prepared it must be implemented, and that this can be accomplished through giving statutory recognition to the plan and requiring conformity between plan and implementing bylaw (Brooks, 1979). This approach is problematic in two ways: it is inflexible, in that plans cannot forecast the future accurately; and, secondly, it is difficult for a plan composed of general policy statements to adequately direct a land use control system such that the question of conformity can be determined.

A third alternative is to recognize a limited legal effect of the plan (Milner, 1967, p. 35). The plan would be adopted by a council, but not in a legislative manner such as by bylaw. Decisions on development would then be made with reference to the plan, but conformity - a hollow goal at any rate - would not be required. The enabling legislation would make clear that the land use control system was to be rooted in plan policy, and that public investment decisions were to be governed by the plan.

While this third approach is perhaps the most flexible way of approaching the policy-implementation link, it does not negate the importance of review and feedback. Part of implementation activity must include a continuous review function to evaluate the effects of implementing plan policies and to identify if implementation should be stopped or redirected (although some decisions are irreversible). The difficulties of achieving a flexible policy-implementation link underlie the following discussion of the nature and role of comprehensive plans.

COMPREHENSIVE PLANS AND LAND USE CONTROL

Land use control involves regulating the type of development allowed on land. By extension, it may require the previous steps in the land development process, such as the subdivision of land into separate parcels or the servicing of land with water and sewage lines, to be regulated as well. Historically, however, the concern has been with the end product - change in the use of land. This is therefore the focus in the first part of the following discussion.

In the United States, the control of development has been accomplished primarily through zoning; in Great Britain, the legal system of development control has been used. The principal difference between the two systems is their degree of flexibility; it is therefore useful to the theme of this thesis to explore their operation.

The American Experience with Zoning

Zoning controls land use by dividing the municipality into districts or zones, and prescribing in detail the uses permitted or prohibited for each zone (Laux, 1971, p. 272). Building height, bulk and area are regulated. Zoning sets minimum development standards, which in practice have been viewed as "as-of-right" expectation. These standards are applied uniformly to all sites classified within a particular district. Once the regulations have been adopted by the municipal council in bylaw form, there is little or no room for administrative discretion. There is certainty, but at the price of inflexibility. The accommodation of unforeseen development trends requires a lengthy process of bylaw amendment, court litigation, or appeal to obtain a variance.

The zoning of urban land became popular in the United States in the second decade of this century, primarily as a means of excluding from a neighborhood or municipality undesirable land uses which might dampen property values. At the time much planning practice was influenced by the 1926 Standard State Zoning Enabling Act and the 1928 Standard City Planning Enabling Act, which has been blamed as the source of confusion about the relationship between zoning and the comprehensive land use plan (Kent, 1964, Ch. 2). The 1926 Act stated that "zoning shall be in accordance with a comprehensive plan", but in the footnotes referred to a comprehensive study, rather than a plan. The 1928 Act pertaining to city planning required the inclusion of a zoning plan regulating height, bulk and the use of buildings in the comprehensive plan, and further allowed piecemeal adoption of the components of the comprehensive plan (Mandelker, 1975).

In consequence, most communities adopted zoning ordinances without ever having prepared a land use plan (Black, 1968, p. 353). The further result has been the development of a substantial literature in law on the need for conformity between the comprehensive master plan and zoning. Generally, American courts have ruled in favor of the more specific of the two documents. The zoning map has been interpreted as the plan, while the legal effect of the comprehensive master plan itself has been reduced to an advisory role (Mandelker, 1976; Brooks, 1979; Patterson, 1979).

This view is now beginning to change. In recent years the courts have given greater consideration to the role of the comprehensive plan in influencing zoning decisions. Furthermore, many states, recognizing the need for land use control to be rooted in policy, are making comprehensive planning mandatory for local governments, and requiring consistency between the plan and the local land use control regulations (Mandelker, 1976). Ironically, this trend flies in the face of increasing disenchantment with the comprehensive plan concept. Two points can be made: first, it is primarily planning theorists who are dissatisfied; legislation still tends to be grounded in the traditional rational-comprehensive model. Second, despite the legislative trends, in practice planners are moving away from an end-state style of planning to a more continuous process with a problem-centered, policy document (Faludi, 1973a, p. 136).

Development Control in Great Britain

While the United States has been struggling with the policy basis for zoning, Great Britain has been exploring the ramifications of development control. In theory, development control overcomes the American problem of plan-implementation linkage. The 1947 legislation provided for a development plan which was to indicate "the manner in the local planning authority propose that land in their area be used" (quoted by the Planning Advisory Group, 1965, p. 5). The original intention was that the plan should contain broad land use allocation maps (as opposed to the precise detail, on a parcel-specific basis, of a zoning map). Once the plan was approved by the national government, the broad map would then provide the basis for development control, setting the framework for making development decisions (Planning Advisory Group, 1965, p. 5). The legislation recognized a link between plan and control, but did not require that the plan be binding. This provision has remained unchanged (McLoughlin, 1973; McAuslan, 1980). Development applications are to be considered on their own merits, "having regard to the provisions of the development plan, so far as material to the application and to any other material considerations" (quoted by McAuslan, 1980, p. 148). Thus, "the principle of association and connection is made but no detailed explanation is given of how this principle is to be translated into practice either in the making of plans or in the consideration of the plans once they are made, when specific development control decisions are in issue" (McAuslan, 1980, p. 151). In practice, the role of the plan in development decisions has been shrinking, in favor of "other material considerations".

Several reasons can be advanced to explain this tendency. First is the fact, already mentioned, that under the 1947 legislation development plans took considerable time to prepare and be approved. While the intention was for the plans to outline general principles for development, in practice they became more and more specific, often having the appearance of zoning maps with parcels and land uses depicted with a great degree of precision. This left the development plan irrelevant and out of date by the time it was adopted, and made review unwieldy. To supplement the development plan, therefore, local governments began to rely more heavily upon other local policies and guidelines, never endorsed by the national government (McLoughlin, 1973, p. 124). The ineffectiveness of the development plans under this system led to the 1965 report of the Planning Advisory Group who recommended restructuring the plan-making system and creating two levels - a structure (policy) plan and a local (detailed) plan. These changes were incorporated into the 1968 Act; consistent with the Planning Advisory Group's report, the provisions pertaining to the control of land use were left untouched.

The linkage between plan and development control provides the second reason for the ineffectiveness of plans. Under a system of development control, there is considerable discretionary power in the decision-making process. This power rests with a committee of the local council, who in turn rely to a great extent upon the recommendations of their staff (Alder, 1979, p. 27). Development control is considered more flexible than zoning, in that standards can be negotiated for each development, and each case is reviewed on its own merits. McAuslan (1980, p. 151) points out that such a system tends to favor the private property interest over the public interest which would be given greater weight were the role of the development plan stronger. He argues (p. 151) that

> If the plans are to be any more than pious expressions of futurology, development control must be seen and used as one of their integral parts; the plan to state what public development will take place and where and what private development may take place and where and what principles will govern both; development

control to be the method for ensuring that that part of the plan which deals with private development is followed.

Canadian Experiences in Land Use Control

Canadian experience has been similar to that of the United States and Great Britain. The legislative view of the policy-control link varies from province to province. In most, the plan has no legal effect other than through land use control mechanisms, usually zoning bylaws (Rogers, 1980, p. 37). The plan is viewed as advisory, with local governments required to consider it in their actions and decisions. In some jurisdictions (for example, Ontario) legal conformity between plans and bylaws has been required for many years; nonetheless, there is normally only a "tenuous relationship between plan documents and planning policy or practice" (Cullingworth, 1978, p. 63).

This brief review has demonstrated the wide gap existing in the United States, Great Britain and Canada between plans and the practice of planning through zoning and development control. Land use control processes cannot look to guidance from plans; conversely, plans cannot look to development control for their implementation. Before attempting a synthesis and a closer definition of the policy-implementation problem, it is wise to examine in greater detail the problems of land use control in practice, through a review of the criticisms which have been directed towards zoning and development control.

CRITICISMS OF CONVENTIONAL LAND USE CONTROL TECHNIQUES

Criticisms of Zoning

The use of zoning has been the object of a diverse array of criticism in the United States. Patterson (1980) provides an overview of some of the major problems.

(1) Zoning in advance by no means guarantees that the desired uses will develop. In fact, the opposite often holds true: in undeveloped and developing areas, zoning can be self-defeating in that it can push land prices beyond levels at which it is economic to develop; and, in developed areas, zoning is a poor tool for altering uses to those envisioned in the plan, especially if it is to less intense uses.

(2) Zoning is passive and essentially restrictive, aimed at controlling the incremental process of development initiated by the private sector. It cannot actively promote or bring about large-scale change.

(3) Zoning does not achieve flexibility and prevents innovation, particularly when a council is reluctant to delegate discretionary authority to its staff. Zoning cannot accommodate new market trends short of an amending bylaw or a challenge in the courts. Although the standards of zoning are often intended as the minimum for development, there is usually no incentive to go beyond them, and the industry uses them as the maximum.

(4) Zoning is vulnerable to abuse, prone to being coopted by those with vested interests in retaining obsolete zoning patterns which perpetuate and promote segregation of uses.

(5) Zoning has been unable to deal with those issues which have been central in plans: environmental protection; provision of low income housing; or control of urban growth.

Another overview is contained in an analysis of several studies of land use control released in the late 1960's (Heeter, 1969). Of zoning, the report claims (p. 8) that

> if there is anything to be learned from the history of zoning to date, it is that development tends to occur more through a series of modifications in the pre-established rules then through an automatic satisfaction of them.

It then argues that:

(1) Conventional zoning requires local governments to decide too much too soon: that is, to pre-determine the market.

(2) Zoning designations have often been difficult to defend from legal and political attacks over a long period.

(3) The reliance on pre-established criteria prevents discretionary judgment. Consequently, many important aspects of development proposals are reviewed inadequately, with the result that opportunities have been lost, and, conversely, undesirable development allowed.

Criticism of Development Control

Criticism directed towards the operation of development control in Britain has included the following:

(1) Decisions based upon individual merit tend to be ad hoc and favor private property interests over the public interest (McAuslan, 1980). At the same time, there appears to be little evidence to support the American fear that dispensing with standards and judging development applications according to merit will result in lower

quality development (Heeter, 1969, p. 9).

(2) The decision-making process is closed, with relatively little public access. Councils have delegated significant discretionary authority to their committees, who rely upon staff advice, making judgments according to criteria which may or may not reflect the current values within the community (Roberts, 1976, pp. 192-193; Alder, 1979, p. 27).

(3) The lack of guidelines and the requirement for individual review of applications means that the review procedure is a lengthy and, hence, costly one (Roberts, 1976, pp. 208-209).

(4) Despite its theoretically more flexible structure, compared with zoning, the development control system has not been able to respond to new values as they arise, or incorporate them into the criteria for reviewing development applications (McLoughlin, 1973, p. 57; Roberts, 1976, Ch. 11).

Summary - Towards Criteria for an Effective Control System

In essence neither zoning nor development control are responsive tools for implementing plans. Zoning sets rigid and inflexible standards; development control, while on the surface more flexible, tends to be unresponsive to the community's value shifts because of the closed decision-making process. In practice, under both zoning and development control, the control of land use has operated independently of the policies of comprehensive plans. Comprehensive planning has depended upon loose "advisory" links with the regulatory system to ensure implementation, and in consequence when new concerns or values were reflected in plans, they seeped into the control system only slowly, if at all.

Probably the most important concern in the literature is with the lack of policy direction for control systems: this points immediately to the importance of strategic planning. The concern is expressed in many different ways. Adler, in a review of decisions of the Ontario Municipal Board, offered the opinion that the Board tends to concentrate too much on the "micro", at the level of the individual, and not enough at the "macro", the level of the community and region (Adler, 1971, p. 217). McLoughlin (1973, p. 57) concluded his review of development control in Britain with the comment that the controls were too tightly drawn in some areas, preventing the incorporation of new priorities and values, but too loosely drawn in others, with insufficient policy guidance. Elder (1979) has commented that Alberta planning legislation lacks sufficient provincial direction on key, critical issues such as environmental protection. McAuslan (1980) might put it that planning law overemphasizes the ideology of private property interests, and gives insufficient weight to the ideologies of public interest and citizen participation.

The common thread among these various opinions seems to be a view that the control system tends to over-regulate in areas that are not really crucial to long term societal survival, and under-regulate in the areas which are. This point provides the first criterion for effectiveness in a control system. The other three which follow are also drawn out of the criticisms reviewed earlier.

(1) Clear Policy Direction. The control system cannot stand on its own; it must be rooted in plan policy reflecting those issues which are most crucial to the community. This implies the need for a

"comprehensive" overview or strategic perspective, and further suggests that the plans providing the policy direction should not be concerned with detail.

(2) A Link Between Policy and Control. Advisory status for the plan does not usually give it sufficient authority to guide the control system. However, giving legal authority to a plan comprised of general, imprecise policies is also clearly inadequate. Three approaches are suggested: first, giving the plan limited legal effect - requiring that public actions and development decisions have regard to the plan, but not mandating conformity nor making a general, comprehensive plan a statutory, legally binding device; second, developing policy at succeeding levels of specificity (for example, through more detailed area plans, the most detailed of which would be linked to the land use control system); and third, opening up the decision-making process on development applications so that the community can assist in translating and weighing general policy in a given situation. These three approaches would be mutually supportive.

(3) An Appropriate Implementation System. The systems perspective suggests that a local government cannot hope to bring about a desired change in land use merely by imposing regulations on the product at the end of a long, complex and dynamic process such as land development. Control must also aim at directly influencing the various decision factors which influence the direction of the process.

(4) A Review System. A close link between policy and implementation can exist only if there is review activity linking the two to create the continuous planning system described in Chapter 2. Review implies evaluation, change and innovation. The development decision-

making process must therefore be open, which implies that feedback must be actively sought, by encouraging and facilitating community discussion to clarify values and goals.

These criteria are admittedly vague and general, and insufficient to formulate a checklist by which to evaluate links between a plan and an implementation system. It is appropriate at this point, therefore, to turn to the theoretical literature for more specific direction. First, attention will be focussed upon the ideas current in planning. Then, the view will shift to the literature of public administration.

CURRENT VIEWS OF IMPLEMENTATION

The Views of Planning: Land Use Guidance Systems

In light of the inadequacies of traditional land use control in guiding urban change, theorists are moving towards the concept of land use guidance systems. In terms of systems theory, a comprehensive strategic plan constitutes a massive generalization, a "vast variety reduction" (Gillis et al, 1974, p. 62). In the high-variety, real world situation, it is necessary to regenerate variety in order to use the plan to guide urban development.

The land use guidance system is therefore that set of elements aimed at recreating the required level of variety to enable control on a continuous basis, within the framework of the strategic plan. Requirements for the system include:

(1) policies based on clear statements of purpose and values;

(2) regulations oriented to the land development process, and not merely to the use of land;

(3) sufficient flexibility in regulations to permit discretion on the part of the development control officer; and

(4) a monitoring system which feeds back information on the effects of previous implementation.

The Policy Base. As Chapter 2 concluded, the form for policy is still very much open to debate. In their growth guidance systems, both Patterson (1980, p. 194) and Chapin and Kaiser (1979, p. 61) stress a comprehensive planning program, with long, middle and short range components, and having both spatial and policy elements. Many writers, though, downplay the role of the comprehensive long range plan, emphasizing instead a strategic long range plan (Gillis et al, 1974), a critical-problems based plan (Katary, 1978), or short range programmatic planning as more appropriate concomitants to a flexible, dynamic guidance system (Heeter, 1969, p. 9; Chadwick, 1978, p. 371).

Some of the objectives which might be given priority in the policy base for growth guidance are suggested by Patterson (1980, p. 195). They include: the control of location and timing of new development and redevelopment; the control of land use interrelationships; the control of community appearance, including its aesthetic and historic features; the provision of economic compensation for property owners adversely influenced by land use policies and regulations; and the control of physical design and the quality of new development.

Implementation Tools. Programmatic tools to guide the land development process center upon public investments: publicly sponsored housing; schools; recreation facilities; land acquisition (or disposition); highways and transit; water and sewer extensions; public buildings (Chapin and Kaiser, 1979, p. 62; Patterson, 1979, p. 316).

Among the regulatory devices are traditional zoning, subdivision, and building codes, but it is more common to see them transformed into "wait and see" approaches (Heeter, 1969, p. 9) which are more process-oriented, combining policy direction with open-endedness:

(1) performance standards instead of lists of permitted uses;

(2) density instead of use as the principal feature distinguishing zones;

(3) allowing, in addition to as-of-right uses, conditional uses requiring special permits, or review by a planning commission or appeal board;

(4) creating special historic, cultural and aesthetic zones where advisory boards review development applications;

(5) providing for planned unit development, where the applicant is granted relief from the conventional regulations if an overall plan is provided; and,

(6) the use of incentives and disincentives to encourage the type of development desired: for example, preferential taxation, bonus or penalty provisions in zoning, pricing policies on land sales or the provision of utilities (Patterson, 1979; Chapin and Kaiser, 1979).

Administrative Discretion and Flexibility. Many of the tools just listed depend upon administrative discretion. Two hazards must be pointed out. The first is the potentially tremendous workload created for those who process development applications, and the likelihood of a longer review period in consequence. This aspect of a flexible planning control system runs counter to the law of requisite variety; it is essential, therefore, that the regulations be policy based, and give sufficient detail on the criteria of review that the applicant himself can provide much of the information and analysis required.

The second hazard is that discretionary authority in the hands of the administration can lead to closed decision-making. The importance of clear policy direction, politically determined, is therefore again stressed; in addition, there is a need for appeal procedures.

Monitoring. Chapter 4 is devoted to describing the characteristics of an effective monitoring system. One component must be mentioned here, though, for it is given central prominence by such a majority of the literature on the reform of planning law and land use control systems. This is the essential role of citizen participation. Those who believe that the control process is too expert-centered (Roberts, 1976; Brooks, 1979) see in citizen participation a means of forcing self-evaluation upon the planning system. Specific tools mentioned in conjunction with implementation and development decision-making include:

(1) the creation of special inquiry boards to review large-scale applications;

(2) local advisory committees to advise on planning applications;

(3) providing planning aid to groups who wish to object to a proposal; and

(4) reorganizing the planning agency to institutionalize pluralism, through decentralization (Faludi, 1973a, p. 250) or through a check and balance system, for example by establishing a unit to speak on behalf of minority community groups (Roberts, 1976, p. 235).

All these alternatives constitute forms of review and monitoring mechanisms, necessary to keep plan and implementation system responsive. But what is important is not so much the kind of institutional arrangement selected for review, as the fact that emphasis is placed on the procedures for making policy decisions. In the final analysis, planning's effectiveness is measured not by the form or content of the plan, nor by the flexibility or specificity of the land use regulations, but by the manner in which daily development decisions are made (Roberts, 1976, p. 239). To use Roberts' words: what is important is the degree to which the entire planning system is "aware of the relevant considerations upon which to make decisions and able to assimilate new problems and new approaches to these problems creatively" (p. 225). This learning process depends upon a two-way exchange between the planning system and the community, upon mechanisms through which pluralistic values may be incorporated, and upon ways of reducing conflict and approach consensus (Brooks, 1979, p. 270).

The Views of Public Administration

The question of implementation is a relative newcomer to the public administration literature on policy formulation. The scanty literature is mostly pessimistic: its focus is upon improving the translation of public policy into programs which carry out the intention of the policy, and it is not sanguine about the possibilities (Williams and Elmore, 1976, p. xv).

One of the early influential works on the topic is Pressman and Wildavsky's 1973 examination of the American experience under the Economic Development Administration program, which foundered in its implementation. They conclude (p. 143) that

> the great problem, as we understand it, is to make the difficulties of implementation a part of the initial formulation of policy. Implementation must not be conceived as a process that takes place after, and independent of, the design of policy. Means and ends can be brought into somewhat closer correspondence only by making each partially dependent on the other.

They suggest first that policies should be evaluated according to the simplicity and directness of the implementation programs required. Second, the organizational machinery required should be considered during policy design: implementation often falters because of insufficient organizational support. Finally, they emphasize the critical importance of constant review and learning during implementation:

> If change - altered relationships among participants leading to different outcomes - is the idea behind implementation, the continuous adjustment of objectives is called for just as much as modification of instruments for attaining them. Implementation ceases being static; it becomes dynamic by virtue of incorporating learning of what to prefer as well as how to achieve it. Implementation is no longer solely about getting what you once wanted but what you have since learned to prefer until, of course, you change your mind again. As implementation becomes a moving target, the vocabulary of creation and completion becomes less appropriate than the language of evolution.
>
> (p. 176)

A 1977 study by Bardach builds extensively upon the earlier work of Pressman and Wildavsky, and concludes with a number of more specific suggestions for the policy formation process. Because of their usefulness to the land use planning process, these suggestions are paraphrased at length.

(1) It is important that policy be grounded in good theory; many problems of implementation relate to inadequate basic economic, social and political theory.

(2) Implementation programs should adopt "entropy-avoiding" strategies; that is, designing simple straightforward programs that

require as little management as possible. For example, implementation is more likely to be effective if it depends upon communication through smaller rather than larger units of social organization; if clearance from fewer rather than more levels of review or approval is required; if a program can be delivered directly as a transfer payment rather than as services, or through market manipulation rather than enforcement of regulations.

(3) Scenario writing can be a useful technique during policy design, in that the designer is forced to think seriously about the contingencies which might occur during implementation, especially those related to obvious design problems.

(4) While scenario writing is useful, it is nevertheless limited; uncertainty besets the accuracy of predictions about the effects of a particular policy. Because of this, it is necessary for implementation programs to have advocates ("fixers") who can troubleshoot during the implementation process. Such roles are unpopular in organizations; they therefore must be located centrally, such as in connection with policy analysis and evaluation groups.

(5) In addition to "fixers", Bardach also concludes that effective implementation requires an information and intelligence apparatus, in particular, groups such as citizens or clientele who can play a watchdog role and provide feedback on the effect of implementation.

(6) Part of the problem of implementation is that society's demands of government are too far-reaching, asking things of government which it is not well-suited to doing, or ought not to be doing. In the long run, therefore, expectations of government programs need

to be made more modest and reduced in scale.

This last point touches on questions of the division of power and responsibility within society, and leads back, again, to the "literature of crisis and transformation" introduced in Chapter 2. According to this literature, the problems of implementation and society's inability to conduct effective guided change are in part a consequence of its present organizational structure. A "planning society" requires that policy and planning changes be formulated by a controlling overlayer of leaders, established socially or politically. There must be an organizational structure to implement and monitor the plans, with central authority available for ultimate enforcement if necessary. Simultaneously, however, is the requirement for structures and processes within the society to foster consensus on policy direction and commitment and responsibility (Etzioni, 1968; Breed, 1971).

This model of a planning society can be used to better understand the deficiencies of the control system, summarized earlier. The criticism of insufficient regulation in key policy areas crucial to societal survival can be phrased in terms of the need to strengthen downward control. Similarly, the criticism that the control system is over-regulated in less important areas can be seen as its prevention of upward flows of innovation and shifts in values, which are part of the consensus building process.

The need for structural change to society suggests that legislative change alone is insufficient to develop a continuous implementation and review style of planning (Brooks, 1979, p. 269) although Roberts' position is that, in the end, it is always through changes in the law that reforms are brought about (1976, p. 223).

Synthesis - Criteria for an Effective Control System

To summarize the points raised in preceding sections, a number of implications for planning can be drawn out:

(1) Plan preparation

(a) Building the links between policy, control and review should be a primary focus during the preparation of a plan.

(b) The action orientation necessary for implementation should not wait until after the plan is prepared, but should begin during the drafting process.

(c) The difficulties of implementation should be one of the criteria by which plan policies are evaluated. Scenario writing can be used to test feasibility of proposals and identify implementation pitfalls.

(d) Plan policies should be grounded in good theory.

(2) The Plan

(a) The literature of implementation reinforces the conclusions of Chapter 2 that a detailed plan is less important than a framework to guide subsequent community decision processes. This framework must provide clear policy direction and support for continuous decision-making.

(3) Organization Structure for Implementation

(a) The organization should be structured to allow for full communication among the plan policy unit, the development control unit, and the monitoring system.

(b) The organization structure should contain a unit where "fixer" and "watchdog" roles could locate, such as a policy analysis unit; and, it should be structured in ways to inject the

the pluralistic viewpoint into the planning process.

(4) Implementation Process

(a) The establishment of processes and structures for feedback and review are critical to implementation; Chapter 4 is devoted to questions of monitoring in practice.

(b) Many writers consider the process of community participation in the continuous process of making, implementing, and monitoring public policy to be essential to the sensitivity and responsiveness of the planning system.

(c) Implementation programs should be simple and straightforward, with as little management structure as possible.

(5) Enabling Legislation

(a) Since municipal planning is under provincial jurisdiction, enabling legislation must provide for a clear link between policy and control, if policy is to be meaningful and if the control system is to have direction. While giving the plan legal authority as in a bylaw accomplishes this, unnecessary rigidity can result. Hence, limited legal effect is a more desirable approach.

Chapter 4

LINKING THE STRATEGIC PLAN TO CONTINUOUS LEARNING: MONITORING SYSTEMS

The objective of this chapter is to establish the criteria required for an effective monitoring system, in order to proceed with the analysis of the case study in Chapters 5, 6 and 7. This objective is achieved by reviewing the practical experience with monitoring, and then examining and synthesizing the recommendations of theorists with respect to the various issues which arise in establishing a monitoring system.

MONITORING IN PRACTICE

The need for monitoring systems and post-plan evaluation was recognized as early as 1956 by Meyerson; yet, in practice, there have been few attempts to establish formal systems to monitor change in the environment or the effects of plan policies.

Britain has had the greatest experience with plan monitoring, partly as a result of experimenting with alternatives to the five year review requirement which had proved so ineffective. A 1974 Department of the Environment circular directed local governments to view planning as a "continuous process which is not completed when a plan is produced", and to utilize monitoring functions as mechanisms to aid effective decision-making and to guide the implementation of policies and plans. In particular, the circular required that structure plans have the capability of being continuously monitored and reviewed as necessary (quoted by Rose, 1979, p. 25). Based on this directive, a number of sub-regional studies developed plan monitoring systems, though Rose (1979, pp. 34-35) has concluded that progress has been, and will continue to be, slow.

While American literature has recognized the need for monitoring (Michael, 1973, for instance), there are few, if any, examples of its use. Chapin and Kaiser (1979, p. 643) devote one page (out of 650) to the discussion of feedback activity as an "extension possibility" of the twenty to twenty-five year land use plan. This is typical of the overall state of public policy-making in the United States which, according to Dror (1968, p. 274) is "amazingly lacking in systematic learning feedback".

Canadian experience also appears to be limited. The fall 1980 canvas of municipalities yielded only one city (Calgary) and one regional agency (Greater Vancouver Regional District) which specifically indicated they were attempting to implement monitoring. In both cases, the planners influential in initiating the system were either British or British-trained. The responses from the remaining cities ranged from ignorance of the concept to the view that it was valuable but impractical, because of the time and attention that a monitoring system would absorb. A number of centers perceived the amendment process to their official or general plans as being equivalent to monitoring, although it appears that such amendments are usually for the purpose of accommodating development proposals, and not as a result of an evaluative review conducted by the planning agency itself.

The conclusion appears obvious: despite the theoretical importance of the concept, and its attractiveness to practising planners, monitoring systems are not easily established. The following sections discuss the issues which have been identified in determining the functions of a monitoring system, putting the system into operation, and integrating monitoring into the planning agency's organization.

ISSUES IN DEFINING THE FUNCTIONS OF A MONITORING SYSTEM

There is general agreement that a monitoring system serves four principal functions: observation, synthesis, interpretation, and formulation of a response. Some writers extend the last function to suggest that the monitoring system should act as an advocate and catalyst for policy change (for example, Wedgwood-Oppenheim et al, 1975, p. 4). At issue is the degree to which the planner accepts a "political" role. The debate on this issue influences decisions regarding the information to be observed and interpreted, and the output to be produced.

Information to be Monitored

The following kinds of information have all been proposed for monitoring systems:

(1) Performance criteria - to measure progress towards plan objectives.

(2) Indicators monitoring the key assumptions upon which the plan is based; if the assumptions proved invalid, the plan's validity would be in question.

(3) Local municipal decisions, for consistency with plan strategies.

(4) Effects of planning policies - both intended and unintended

consequences.

(5) Actions and decisions of other agencies influencing the environment.

(6) Issues which may change planning priorities - sudden changes in social values, for example.

(7) Indicators of change in the urban or regional environment: social, economic, physical and cultural.

Initially, British planning practised "impact monitoring", in which the achievements of plan policies were measured against a specific set of targets. The underlying assumption was that there existed a high degree of control which could be applied to bring the system back on track if necessary. Planners therefore focussed upon a pre-determined set of indicators of plan performance, emphasizing quantitative analysis, and collecting considerable data about this narrow range of indicators. The problem with this approach was that the urban system is only imperfectly understood and the planning system capable of but partial control. Unintended consequences are often more important than the degree to which a given target is achieved (Wedgwood-Oppenheim et al, 1975, p. 12).

The importance of unintended consequences has led to the development of "strategic monitoring" as a means of understanding what is really happening in the urban environment - irrespective of the intentions behind plan policies. Strategic monitoring balances deeper analysis of policy impacts with a broader overview through the use of mixed scanning (Wedgwood-Oppenheim et al, 1975, p. 10; Rose, 1979, p. 23). Broad scans of non-specific information (such as items 5, 6 and 7 above) probe for unintended consequences of policies, and are combined with more rigorous analysis of policy issues. There is less emphasis upon monitoring quantititative indicators of performance; this permits more responsive planning, linking feedback with action (Rose, 1979, p. 35; Sutton, 1979, p. 4). For, it is essential to the effectiveness of the monitoring system that information collection not absorb all the system's resources; the important activity is producing action-oriented output.

The Output of the System

A monitoring system might produce either regular reports or focus upon involvement in the development control process. The options include:

(1) The "overview", a general summary of current trends. This may be an annual report on progress in plan implementation, comparing actual trends with those forecasted in the plan (Gillis et al, 1974, p. 10). Or, it might deal with specific issues currently important in the region, in the sense of a "state of the region" (or city) report (Wedgwood-Oppenheim et al, 1975, p. 25). This latter approach would be more suitable for identifying unintended consequences than one which stayed within the narrower framework of plan policies and expected outcomes.

(2) Periodic information reports drawing the attention of superiors and decision-makers to issues without actually recommending what actions should be taken.

(3) Regular re-interpretation of planning policies, as a technical support to other planning activities, particularly development

control. This function would produce less written output, being involved more in education and negotiation within the planning agency.

(4) Evaluative reports, containing recommendations for change to planning policies and procedures. In this instance, the output of monitoring would include extended rounds of dialogue, persuasion and negotiation in an attempt to convey the views of the monitoring unit.

(5) Studies and reviews which may never be communicated to anyone, but are undertaken before an issue arises.

Many writers (for example, Wedgwood-Oppenheim et al, 1975; Wildavsky, 1979) argue that the policy evaluation function is the most critical - although most difficult - one. Consequently, a common approach is for a monitoring system to focus upon more easily accomplished objectives, such as regular information reports (Sutton, 1979; City of Calgary, 1980). Once credibility is established, the system would then advance to policy evaluation.

It is important that output from the system be regular, frequent and immediate. For example, an overview that takes a year to prepare is of little relevance and dangerously similar to the periodic plan update which monitoring seeks to avoid. A continuous planning style demands rapidity of response, rather than a thorough, detailed - but protracted - investigation. It is also particularly important that information be streamlined and simplified; perhaps the greatest challenge to the monitoring system is to reduce the overwhelming mass of material and present only that which has most meaning.

The output of the monitoring system must be of use to the organization; too great an emphasis on information for its own sake, without showing the policy relevance, could well spell the death of the system in the next budget debate. Furthermore, information must be communicated effectively. Like any research activity, the value of monitoring can occasionally be questioned. Use must therefore be made of effective presentation techniques - graphics, minimal text and tables, and the reiteration of crucial points. Furthermore, it is useful for the planners involved in monitoring to evaluate themselves and their own program from time to time, and redirect it if necessary (for example, an unpublished evaluative report by the City of Calgary, May 1980).

ISSUES IN IMPLEMENTING A MONITORING PROGRAM

Information Requirements

Although early literature placed considerable weight on the potential of large-scale information systems (for example, McLoughlin, 1969), recent literature advocates increasing reliance upon non-quantitative approaches (Gillis et al, 1974, p. 46; Wedgwood-Oppenheim et al, 1975, p. 21; Sutton, 1979, p. 7). Judgment and intuition are recognized as important tools in selecting and interpreting both quantitative and qualitative information. Sutton suggests "soft" information sources for the broad scanning process, and quantitative data for detailed investigations. At the level of the broad scan, information would be obtained in two ways: from "intelligence" - verbal communication from personal contacts, opinion, and rumour; and, second, from qualitative information - press clippings, correspondence, published reports, newsletters, journals, books, minutes of meetings. For detailed investigation, sources include: operational data such as development permit information, financial data, and user surveys; published statistics from national, provincial and local census publications; and special direct surveys where necessary.

These approaches could be applied to obtain each of the different kinds of information outlined earlier in this chapter. The critical question would concern the point at which a broad scan would switch into a more detailed analysis. The use of a trigger mechanism, signifying that an issue was serious enough to warrant greater consideration, has been suggested (Wedgwood-Oppenheim et al, 1975, p. 22).

The selective approach to information collection does not mean that information would not be accumulated regularly. One of the reasons for the failure of the five year plan review was that information was rarely updated, and thus special surveys were required. Monitoring, if it is to be effective, requires the operational collection of information on a daily basis. The responsibility to do so must be a recognized part of the job description of designated staff. In some information areas the most efficient way of accomplishing this is to tie directly into the processes which generate the information: for example, each time a building permit is filled out, or a property assessment completed, or the financial accounts reviewed, or the municipal census undertaken. In these areas, there is considerable potential for increasing efficiency with information systems. In other information areas, however, new operations may need to be initiated: for example, newspaper clipping.

Thus far, the description of monitoring has implied a view of a centralized unit manning a "listening post" (Lash, 1976, p. 57) or "taking the city's pulse" (Meyerson, 1956, p. 174). But, as

Friend and Jessop (1969, p. 132) point out,

> a system of strategic control will fail if it is forced to rely entirely on the scanning abilities of an individual or small group centrally located.

From a systems perspective, therefore, system stability is increased if the monitoring function is performed by more than one unit; and, from a cybernetics perspective, reliability is improved when information is obtained from a variety of sources, and interpreted at the source rather than through the feedback process. Both of these points have implications for organization structure and for citizen participation, discussed later in the chapter.

Analytic Approaches - Measuring Plan Progress

When monitoring systems were first promoted in Great Britain, they were presented as a means of measuring a plan's movement towards its objectives. This was to be accomplished by establishing targets for each objective, defining indicators of performance, and establsihing levels of significance. In practice, targets have been difficult to establish, particularly because planning objectives are frequently non-specific, incapable of measurement, nebulous, and many-faceted. A target measuring one variable cannot adequately encompass an objective comprised of many variables. Often targets are established with performance indicators which require information impossible to specify or obtain (Gillis et al, 1974, p. 37; Wedgwood-Oppenheim et al, 1975, p. 11). Conversely, information systems may be established to measure a variable not clearly related to any particular objective (Clarke, 1978, p. 26). It is essential, therefore, to lay the foundations of the monitoring system during plan preparation (Harris and

Scott, 1974, p. 732; Gillis et al, 1974, p. 36).

It is important to distinguish between performance indicators for those policies in the strategy which the municipality has considerable power to achieve (such as public housing construction) and those for policies where the municipality is in essentially a reactive position (such as total housing construction). The former target would be a measure of performance, whereas the latter would indicate if the plan's assumptions and forecasts were still valid and if deviations were significant.

Determining signifiance of deviations from plan targets has been one of the biggest pitfalls of monitoring systems. For example, in the sub-regional study for Nottinghamshire/Derbyshire, quantitative analysis of data such as time series was adequate only for giving initial guidance as to the importance of change. It could not be relied upon for determining significance, partly because the data were too simplistic to reflect the complexity of the plan's strategy. Instead, planners had to supplement their use with what Dror (1968) terms "extrarational" abilities: judgment, intuition, and synthesis. This approach was defended by the sub-regional study team:

> Experience has shown that the significance test of what is or is not important...depends to a large extent on soft information: for example, local authority perception of strategic matters, professional opinion and experience... rather than a rigid interpretation of performance indicators and a rigorous application of impact tests.

Gillis et al, 1974, p. 23

Intuitive approaches have been adopted by the two Canadian planning agencies experimenting with monitoring; in Vancouver, for example, a review of the Livable Region Program and its policies was undertaken on the basis of general demographic, economic and land use data, combined with judgment and interpretation.

Analytic Approaches - Policy Analysis

The most difficult task in monitoring is the evaluation of the performance of existing policy, and the analysis of alternative new policies. Since Dror's classic (1968) work, the field of policy analysis has become increasingly enriched with a variety of analytic styles which, rather than being mutually exclusive, support and enhance each other (Wedgwood-Oppenheim et al, 1975, p. 20). From this literature a number of general guidelines relevant to monitoring can be drawn. The following come from the work of one British team (Wedgwood-Oppenheim et al, 1975, pp. 20-21).

(1) The focus should be on the most important issues - that is, the strategic ones, even if they are also the most difficult to analyze.

(2) The focus should be upon providing the best analysis that is possible within the constraints of time and other resources, rather than upon providing the best overall solution.

(3) Policy analysis requires the use of imagination and creativity.

(4) The evaluation criteria for alternative policies should include the variables involved in implementation, such as political and institutional factors.

A range of other potential techniques exists. The strategic choice approach of Friend and Jessop is concerned with problem definition, gradually widening the scope of analysis until the need for commitment to a policy decision prevents further exploration. Strategic choice is closely tied to AIDA - the "analysis of interconnected decision areas" - an approach which defines a problem in terms of its component parts, analyzes their inter-relationships, and builds upon this information to generate policy solutions which become increasingly multi-variate and complex. Causes and effects analysis is also a method of policy analysis based on understanding the problem and its origins; the rationale is that the significance and likelihood of potential consequences can be better assessed if the causal process is examined (Gillis et al, 1975, p. 44).

Hudson (1979a) has coined the term "compact policy assessment" to refer to "quick and dirty" procedures in policy analysis. Such procedures include those for pooling judgment, building consensus, and identifying areas of uncertainty or disagreement for further study. They can be applied to every stage of policy analysis, including problem definition, exploring the basis of assumptions, and testing the implications of alternative proposals.

The "Delphi" technique can be used as a more formal method of pooling judgment and working towards a consensus, whether it be for forecasting or for impact assessment. Scenario writing, like the Delphi method, also involves subjective forecasts and can be used in a team setting (Gillis et al, 1974, p. 45).

These approaches all accept the inevitability and, in fact, the value of subjectivity in analysis. But they attempt to guide and exploit this subjectivity, by incorporating some of the methods of the rational decision model. Quantitative tools of analysis are not completely rejected, but used cautiously, in proportion to the scale of the problem and the amount of "hard" information available. At the same time, the use of intuitive approaches does not downgrade the importance of theory about how the urban system actually works. In part, they have developed because of an insufficiency of such theory. Judgmental approaches to the analysis of policy alternatives can only be improved with increases in knowledge and powers of explanation of urban processes.

The Role of Citizens in Monitoring

The call for improved mechanisms for citizen review of planning policy comes from many directions and includes lawyers (Roberts, 1976; Brooks, 1979; McAuslan, 1980) and social scientists (Schon, 1979; Friedmann, 1973; Michael, 1973), as well as practising planners (Jefferson, 1973; Lash, 1976). Yet, the descriptions of monitoring experiences to date have little to say about the role which could be played by citizens. While emphasis is placed on the importance of subjective analysis, the implications are that it would be the prerogative of professionals to exercise these capabilities (for example, Gillis et al, 1974, pp. 46-47; Sutton, 1979, p. 42).

The shift from comprehensive attempts at monitoring to a more selective approach creates an opportunity for citizens to play a fundamental role. Using the managerial skill of "control by exception" as an analogy, citizens - through their expression of concern, on an exception basis, over issues and the unintended consequences of policies - can greatly aid planners in selecting the policies and information to be monitored. For example, in one study of a monitoring program in which performance indicators were measured, issues were identified by the agencies and authorities most closely attuned to citizens before they were identified by the monitoring unit (cited by Wedgwood-Oppenheim et all, 1975, p. 11).

Any mutual learning experience depends upon the free exchange of information. Access to information is therefore critical to the ability of citizens to participate in the plan monitoring exercise. Used in this sense, "information" means more than mere description of the current and projected situation with respect to demographic, economic, social and development trends. It means explaining, for a given issue, what the current municipal policies are, and their anticipated consequences. It means identifying, where known, alternative policies that are possible, their consequences, and explaining them to citizens (Jefferson, 1973, p. 297; Task Force on City Government, 1980, p. 49).

ISSUES IN ORGANIZATION STRUCTURE

This thesis argues that, although the literature of planning - with a few exceptions (McLoughlin, 1969, pp. 299-304; Faludi, 1973a, Ch. 13) - devotes little attention to questions of organization structure and operations, issues such as the ease with which information flows and the way in which authority and responsibility are assigned are critical to the effectiveness of a responsive control and learning system for planning. This argument will be developed in the following section by reviewing the organizational issues involved in the establishment of a monitoring system.

Location within the Organization

Generally, separate units have been created for monitoring. The advantage has been that responsibility has been clearly allocated; if a function is important enough, responsibility for it should be assigned or the task will not be executed. The consequence has been, though, that monitoring units have assumed the role (whether intentionally or not) of watchdogs. And, perhaps inevitably in an organization dependent on checks and balances, the role of watchdog carries with it the danger that information sources will be cut off unless the monitoring unit carries great authority. For this reason, monitoring must have the strong support and commitment of senior management, and this support must be communicated to all those whose cooperation is required.

A monitoring unit stressing performance evaluation and policy analysis in its duties should be a separate specialized entity and is most effectively located if it reports directly to the agency head or to an authority-wielding office such as the budget department (Wildavsky, 1979, p. 224). For example, a study reviewing alternatives for the location of a monitoring unit for a British strategic plan concluded that the most central one was the preferred option (Wedgwood-Oppenheim et al, 1975, p. 29). Since a monitoring system does not exercise direct control, it must operate in a location where it can exert influence. The conclusion was qualifed, however, with the point that it was critical that the unit initiate contact with line agencies, upon whom implementation depended. Identical conclusions have also been reached by a study examining the larger question of innovation in planning (Jefferson, 1973, p. 297).

McLoughlin (1969, p. 303) proposes a model of a planning agency with three principal units: plan-making and design, development control, and information. Monitoring would be one of the principal functions of the information unit, and, through its direct involvement with senior management, would integrate the two other functions. An alternative approach is being attempted in Calgary, where a separate unit has not been created. Rather, all staff of the division which prepared the plan are expected to assume responsibility for its monitoring, and to incorporate monitoring activities into their daily work routines (City of Calgary, February 1977, p. 7). This approach brings to mind the comment by Wildavsky (1979, p. 221) that the "spirit of the self-evaluating organization suggests that, in some meaningful way, the entire organization should be infused with the evaluation ethic". The statement by Friend and Jessop quoted earlier also reinforces this view on the merits of diffusing the monitoring and evaluation function. Nevertheless, under this second approach, monitoring carries less authority and therefore has less potential effectiveness.

The Link Between Monitoring and Implementation

The definition provided early in this chapter indicated that monitoring includes four functions of observation, synthesis, interpretation, and advice on action. While there appears to be unanimous agreement that monitoring must be linked to the control functions if it is to be effective (Haynes, 1974, p. 5; Bennett, 1978, p. 317; Rose, 1979, p. 30), in practice monitoring has tended to concentrate too much on information gathering and not enough on action recommendations

(Wedgwood-Oppenheim et al, 1975, p. 14; Rose, 1979, p. 27). This failure can be attributed in part to the tendency for the monitoring unit to be separated, organizationally, from those in development control. This separation can contribute to diminishing communication, which in turn reduces the insights possible through monitoring, and ultimately reduces organizational support for its recommendations.

More specifically, there are a number of reasons justifying closer contact between monitoring and the land use control division. Implementation functions, especially development control, constitute a major source of information for the monitoring program. Information also flows the other way: for example, if monitoring shows that some adjustment is necessary to a development regulation, communication would be required among the monitoring, plan policy and development control groups. A strong link between monitoring and control helps improve that of policy and control; and, the more the monitoring unit understands the realities of the control process, the better will be the quality of its analysis. Finally, of greatest importance, is the issue of implementation itself. Unless the land use control division support the recommendations of the monitoring group and are prepared to act upon them, monitoring would be rendered useless, since its link to action would have dissolved.

Whether the monitoring-control link is a vertical one (with authority flowing from monitoring to control) or a lateral one, communication will likely be minimal unless the foundations are laid early in the plan preparation process. The scope, terms of reference, and activities of the monitoring system should be developed in consultation with those who will be asked to implement the policy and program changes forthcoming from its work. Similarly, operational information systems such as those based on development permits require staff involvement from an early stage, to the point that they feel responsible for the system.

These considerations point to a view of a process of plan preparation dominated less by the plan document, and more by the creation of new operational procedures, new channels of information flow and interpretation. Viewed in this light, plan preparation might include a variety of activities to generate support while analysis is underway. "Action research" is one which holds considerable potential - a strategy oriented to the early identification of actions with "high payoff" in that they are important to other participants, cope with critical problems, or can be easily implemented. It is a style of research and planning highly dependent on interpersonal communication skills - the building of trust, cooperation and commitment. Because it places less importance on the preparation of a plan, action research initially faces organizational resistance (Murchie et al, 1980).

The Link Between Monitoring and Strategic Planning

To the extent that monitoring involves synthesis of information, evaluation, and formulation of policy on key issues, it is identical with strategic planning. The converse also holds true: the model presented in Chapter 2 advocated that any strategic planning exercise must begin with a review activity, identifying and evaluating policy.

There is a distinction nevertheless: monitoring focusses first upon information, and then expands to identify the policy implications. Strategic planning's focus is upon issues and policy; it then works backwards to identify information needs. Given this distinction, it is probably wise to separate the two functions organizationally. This will also facilitate the potential role of monitoring in building a bridge between strategic planning and development control. In practice, however, monitoring frequently is adopted as a continuing function of the plan-making unit which prepared the plan.

Monitoring and the Organization Environment

Planning agencies - and municipal governments generally - tend to be centralized and hierarchical, with little latitude for independent response amongst the various units (Friedmann, 1973, p. 219; Michael, 1973, pp. 200-201; Yates, 1977, p. 6). In part, this characteristic is due to a belief in the need to present a unified front, simultaneous with a fear of making mistakes. These features are natural in an organization accountable to politicians who are themselves accountable to the electorate. In addition, centralized authority has been perceived as the only means of achieving coordination of functions such as information systems and for achieving central policy guidance.

Most students of management agree that the strength of a centralized, bureaucratic organization lies in its capacity to manage routine and predictable processes (for example, Bennis, 1969, p. 19). In an environment of high uncertainty, however, the bureaucratic organization cannot cope with the vast amount of information which must flow if it is to respond to change. The organization cannot learn rapidly enough from its environment, and units within it have neither the knowledge nor authority to adjust their operations quickly. In such an environment, it is difficult for a monitoring system - so dependent on the free flow of information - to be effective. A variety of strategies have been proposed to improve the organization's ability to learn about, and respond to, environmental change.

One strategy is the decentralization of authority and expansion of the lateral structure of the organization (Galbraith, 1977, pp. 130-165). Organization theory holds that the greater the uncertainty in the environment in which an organization operates, the more lateral and decentralized the structure should be, if individual units are to respond rapidly to change. More specifically, there are a number of options available when the hierarchy of an organization is becoming overloaded from uncertainty and the need to refer decisions upwards. The organization can respond by either decreasing the amount of information processed (for example, by sharing responsibilities with other organizations) or by increasing its information handling capacity. One means would be to increase lateral decision processes, since these cut across lines of authority and allow decision-making to occur at levels where information exists, rather than forcing upwards movement. Examples include the creation of temporary task forces, increasing the formal power of managers, and establishing a matrix structure of organization. This last holds perhaps the most potential for complex structures operating in an environment of rapid change and uncertainty. Essentially, a lateral organization is created, but dual authority lines are drawn at critical points where integration is required. A unit manager at one of these matrix intersections would report to both a line or product manager and a functional or specialty manager (Sayles, 1976; Galbraith, 1977, p. 161).

A second alternative is proposed by those who find that, despite the urgent need for bureaucracy to be more responsive, major organizational changes are impractical and unlikely. One suggestion in this vein is to create policy units within the organization, charged with the purposes of evaluation and initiation of change, and isolated from the "stultifying effects of bureaucracy" (Wildavksky, 1979, p. 224).

Calls for more radical decentralization come from Friedmann and others representative of the "literature of crisis and transformation". For example, Friedmann (1973, pp. 196-200) proposes a decentralized societal structure of "learning cells" - temporary, small scale, task-oriented working groups, which would operate on an interpersonal basis, would be self-guiding and responsible, and would be composed of both voluntary and representative membership. Faludi (1973a, p. 248) also proposes a decentralized model of a planning agency bearing many resemblances to that of Friedmann. Having identified the key problem of the organization as insufficient pluralism (and thus, insufficient opportunities for divergent views and learning), he suggests increasing the possibilities for contact between individual planners, politicians and citizens. This would be facilitated if the planning agency were structured on a loose network of self-guiding teams.

Advocates of decentralization in planning often do not detail how their proposals would operate in actuality. Eventually, many of the suggestions in this literature lead to the need to "re-educate" man - to become more open to learning from others, living with uncertainty, embracing error, and participating in societal goal formulation (for example, Friedmann, 1973; Michael, 1973; Trist, 1978). These qualities are all required to participate in the upward consensus building process described in earlier chapters as part of the process of societal guidance. It is beyond the scope of the thesis to review in greater detail suggestions as to how man can be "re-educated", and the consensus building process improved. However, it is important to emphasize that the decentralization process must not reject the importance of the downward policy formation function. For example, one author argues that while the municipal government may be too centralized for responsiveness to change, it is at the same time too decentralized for coherent planning and policy-making (Yates, 1977, p. 6).

Another approach for improving responsiveness is organizational development, an educational strategy to bring about change by concentrating on values, attitudes and interpersonal relations within the organization (rather than on its goals, structures or technologies) (Bennis, 1969, p. 11). Organization development utilizes "change agents" external to the organization to act as a catalyst. While they work collaboratively with those within the organization, change agents tend to share a philosophy counter to the values of the traditional task-oriented bureaucratic model. This philosophy emphasizes the importance of humanistic concerns to the ultimate effectiveness of the organization (Bennis, 1969, Ch. 1).

A final approach to assist change is to facilitate and encourage criticism from outside the organization. Structural resistances to encouraging and utilizing evaluation may be so great that incentives for change will never come from within (Schon, 1971, p. 177). In this situation, such outside stimuli for change must be actively sought, by institutionalizing the review mechanisms discussed in Chapter 3 providing financial assistance to voluntary and non-government groups, and increasing the accessibility of the public to government information.

The question of organizational resistance to feedback is an issue often faced by monitoring units and is worthy of exploration. First, feedback often results in information overload, requiring users to employ all their analytic and intuitive skills to distinguish "signals" from "noise". Second, feedback often increases uncertainty, providing, as it does, partial and frustrating glimpses of the complex urban system. It may present recipients with "deep intellectual and emotional discomfort", exposing errors in policies, raising questions about the legitimacy and purpose of the organization, in addition to increasing uncertainty about policies and their impacts (Michael, 1973, Ch. 16).

All these unpleasant characteristics of feedback mean that organizations will tend to build up means of protecting themselves from it - by isolating the monitoring unit, or cutting information flows, for example. Organizations tend towards stability and self-perpetuation, and any monitoring or evaluation program is threatening. Wildavsky (1979, p. 220) argues that there is an inherent contradiction and tension between organization and evaluation. Organization implies stability, requires and generates commitment to its policies and programs, and involves activities related to its programs or clients.

Evaluation, on the other hand, suggests change, breeds skepticism, and involves activities related to objectives.

In this situation there is no solution. The check and balance concept of organization structure is one mechanism, but ultimately, the only hope may lie in those vague notions of re-educating man - and how to achieve that without losing the freedoms of the self-guiding society is a difficult question indeed.

SYNTHESIS - CRITERIA OF EFFECTIVE MONITORING SYSTEMS

The following summarizes some of the main points which have been raised in this chapter about effectiveness in monitoring systems.

(1) System Functions

(a) Strategic monitoring utilizing a mixed scanning approach is the most effective way of identifying unintended consequences, which may be the most important function of a monitoring system. Monitoring must take a wider perspective than merely measuring plan performance according to a pre-determined set of targets.

(b) The mixed scanning approach requires broad scanning of non-specific information to identify unforeseen events combined with deeper analysis of key issues.

(c) Output should be regular, immediate, and frequent. Rapidity of response is essential.

(d) The output of monitoring must be "marketed" and its utility demonstrated, for example by pointing out implications for policy and current issues. The planning staff may need to assume an active catalyst role to initiate change as a result of their work.

(2) Analytic Approaches

(a) Information should be obtained from a wide range of sources, including citizens, the press, and professional contacts as well as more traditional sources.

(b) Information systems requiring massive data collection exercises should be avoided. Instead, information should be accumulated from that which already exists in the organization, from published statistics, and by means of operational procedures.

(c) Information to be monitored should be determined partly on the basis of plan objectives and performance criteria. The requirements of the monitoring system must be considered during policy formation; for example, performance criteria which cannot be defined or measured should be avoided.

(d) Intuitive methods of analysis are most effective for broad scans, with more quantitative approaches useful for detailed investigations.

(e) A wide variety of techniques is available to inject rationality into the subjective approaches to policy analysis.

(f) Citizens are an important component in a monitoring program. When provided with sufficient and appropriate information, they can participate in the identification of issues and policies with unintended consequences.

(g) Accessibility to information is a key to the effectiveness of citizen involvement in policy review.

(3) Organization Structure

(a) The effectiveness of monitoring will likely be greatest if the unit reports directly to senior management.

(b) A monitoring system must be prepared to cope with isolation accorded it by the rest of the organization. Senior management commitment is therefore essential.

(c) Notwithstanding (a) and (b), the monitoring and evaluation ethic should be diffused throughout the organization, created perhaps through an organization development process (refer to 3e).

(d) The link between the monitoring and implementation functions is critical. It must be established during a plan-making process, through the use of strategies such as action research.

(e) Monitoring requires an organization environment where information can flow freely and individual units have knowledge and authority to respond to change in the urban system. A number of strategies exist to improve the capabilities of bureaucratic organizations in these areas. These include decentralization towards a more lateral structure; matrix management; organization development; and the institutionalization of outside review agencies.

Conclusion

This chapter and the previous one have been aimed at developing implementation and monitoring criteria for an effective system of strategic planning. Such detail has been justified in order to develop a serviceable instrument for the evaluation on which the remainder of the thesis is focussed. Not all of these criteria will be relevant to the case study under examination, primarily since it was a plan preparation exercise, not an implementation program nor a monitoring one. Nevertheless, as stressed in this and previous chapters, the foundations of implementation and monitoring must be laid during plan preparation: this is the proposition to be explored in the chapters which follow.

Chapter 5

PLANNING LEGISLATION IN ALBERTA AND THE FRAMEWORK FOR EDMONTON'S GENERAL PLAN

The subject for this thesis developed out of my involvement with the program responsible for the general municipal plan for Edmonton, Alberta. Since the adoption of Edmonton's first general plan in 1971, this program has had responsibility for implementing the plan, keeping it up to date, initiating a major review of the plan, preparing a new one, and, now, implementing and monitoring this new plan. My participation began when the major review was being discussed in the Edmonton planning department. At that time, plan implementability and responsiveness were key qualities that we wished to see reflected in a new plan. Chapters 5, 6 and 7 trace our progress and evaluate our success, utilizing the criteria developed in the previous two chapters.

The authority and scope of a general plan are determined by provincial legislation governing the control of land use. It is necessary, therefore, to examine how the legislation treats the questions of plan implementation and review, in order to appreciate the context within which the general plan program has been operating. The first part of the chapter outlines the land use control system in Alberta; the second part focusses upon the statutory provisions for review, and introduces the Edmonton program.

LAND USE CONTROL IN ALBERTA LEGISLATION

The Planning Act

The control of the use of land in Alberta is primarily governed by the Planning Act. The Act now in force was passed by the Legislature in 1977, replacing the 1970 Act after a four year period of public debate.

The purpose of the Act is described as:

> To provide means whereby plans and related measures may be prepared and adopted to
>
> (a) achieve the orderly, economical and beneficial development and use of land and patterns of human settlement, and
>
> (b) maintain and improve the quality of the physical environment within which patterns of human settlement are situated in Alberta,
>
> without infringing on the rights of individuals except to the extent that is necessary for the greater public interest. (S. 2)

Section 2(b) is a new addition, reflecting public values towards preservation of the environment; as such, it has been interpreted as a progressive step (Elder, 1979, p. 447). Nevertheless, the importance of orderly, economical land development continues to hold the central place in the statute. This focus is common in Canadian planning legislation (Rogers, 1980, p. 1) and demonstrates the point made in Chapter 2 about the assumptions underlying planning law. Terms such as orderliness and efficiency are not defined. Nor does the Act enlarge upon the "greater public interest" to provide direction on the concept of justice underlying the rationale for public control of private property.

Although the Act specifies that its purpose is to enable the adoption of plans and related measures, the ultimate objective of such measures is the control of land use (Rogers, 1980, p. 3). Control of land use is exercised in two principal ways in Alberta: the regulation of subdivision of land into parcels, and the regulation of the development and redevelopment processes. Control of land use and the implementation of plans is thus to be achieved by means of passive, regulatory approaches, rather than by strong direct action.

The Link Between Control and Policy

The process of control and regulation of land use is achieved through a permission granting system for subdivision (subdivision approval) and development (the development permit). The sources of guidelines for this system are variable. While the Act in its purpose statement (S. 2) clearly suggests that guidelines are to derive from plans, those sections of the Act governing permits and subdivision approvals are less forceful or clear.

Development permits are to be issued in accordance with the regulations of a zoning-like "land use bylaw" (S. 81(1)). Although the Act includes the sections governing the land use bylaw in its part on implementation of plans, it is quite clear that the bylaw stands on its own. Except for one minor provision, described below, a municipality is not required to link the regulations of the bylaw to the policies in any of its plans.

Four statutory plans are provided for under the Act, of which the regional plan, prepared by a regional planning commission, is given unconditional authority over development, the Act declaring that "where a regional plan has been ratified by the Minister, no local authority shall enact any bylaw, take any action or authorize or undertake any development that is inconsistent with the regional plan" (S. 53(2)). However, similar authority is not passed on to the plans prepared by the municipality. Moreoever, the strong statements ring hollow in the face of the generality of most regional plans, which rarely dictate how land is to be used within an incorporated municipality.

The role of the three municipal plans under the Act - a general municipal plan and two types of area plan - is more confused. For example, the Act clearly states that at least one of the area plans must conform to the land use bylaw (not vice versa, as might be expected - S. 65(a)). It also provides for one specific linkage between a general municipal plan and the land use bylaw (S. 68(1)), requiring that a "direct control district" - which allows the municipal council to control land use directly rather than through any of the land use bylaw districts - must be designated in a general municipal plan before it can be utilized under the bylaw. Aside from these two statements, however, the statutory plans are not linked to the land use bylaw.

This confusion on the source of guidelines for the land use control system points directly to the major weakness of the Alberta legislation. If the controlling bylaws can stand on their own, then the role of statutory plans is clearly in question. The separation of the control system from the guidance of policy could potentially lead to ad hoc and inconsistent decision-making, divorced from community values, with control becoming an end in itself. And, conversely, since there are no direct implementing tools, policy may become truncated and ineffective.

The situation is not as unclear with respect to the other major component of the land use control system, subdivision regulation. Approvals for subdivision are made in accordance with the Subdivision and Transfer Regulations, which are under the authority of the Act and hence provincially determined. However, a subdivision must be consistent with any existing statutory plan (S. 88(1)(b)); the authority of the plans is therefore made explicit.

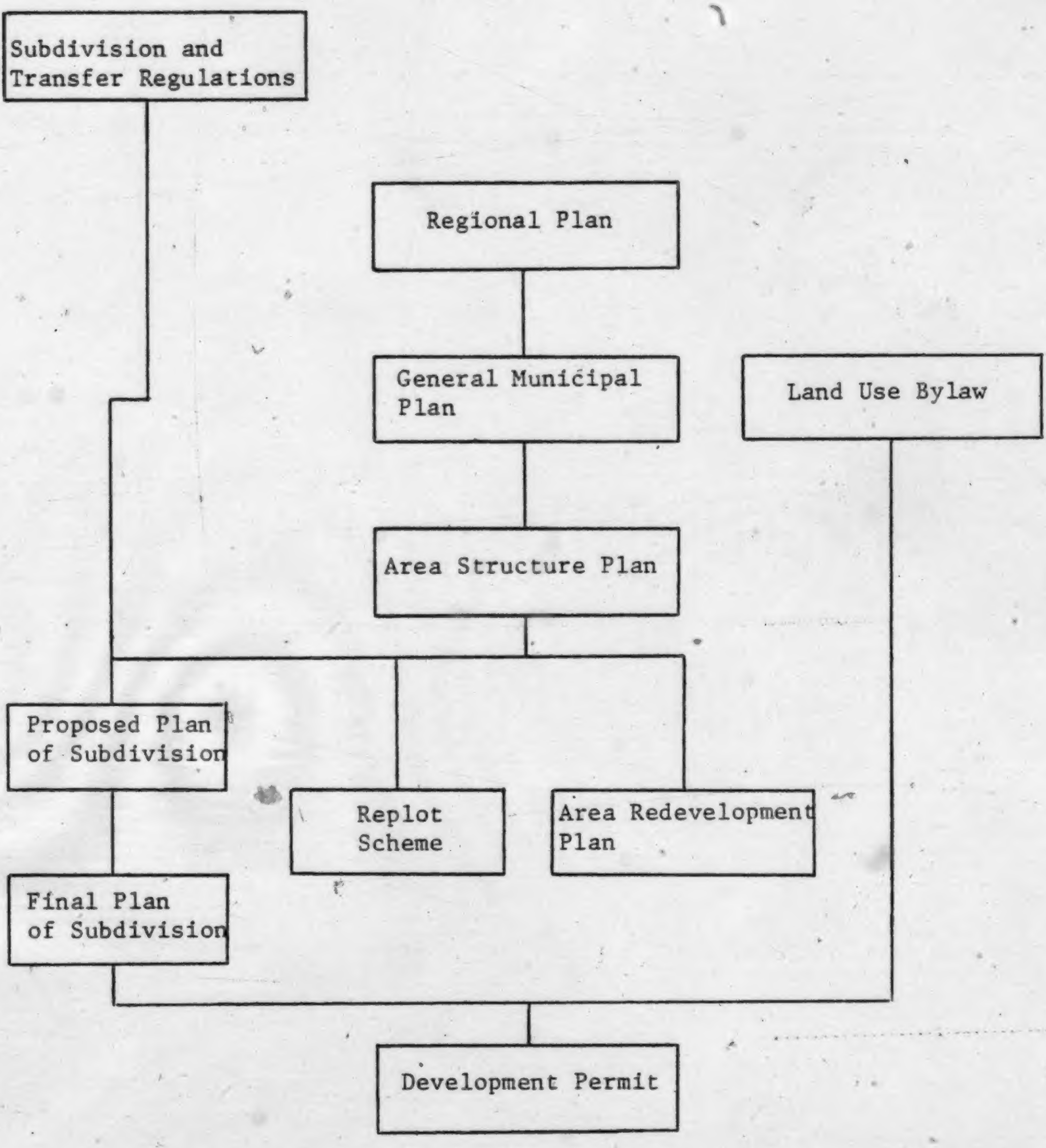
The net result of this structure for planning is that shown in Figure 3. This chart reflects one interpretation of the Act; since its passage is recent, many points have yet to be clarified in the courts and other interpretations may therefore be possible (for example, Murchie et al, 1978, p. 15). Two points should be emphasized. First, despite the numerous statutory plans, only two implementation devices exist under the Act - development permits and subdivision approval. Second, the relationships among the various plans, particularly the general municipal plan, area redevelopment and structure plans, and the land use bylaw are not always clear. Despite the purpose statement in the statute to exercise control through the preparation of plans, the control system need not conform to the general municipal plan. The policy-implementation link is thus only loosely defined.

The Role of Plans in Alberta

The 1913 Town Planning Act enabled local governments to prepare town planning schemes, detailed regulatory mechanisms aimed at controlling suburban land development resulting from the pre-war land boom. However, by this time the peak of the boom had already passed and the provisions of the legislation were never employed (Smith, 1979, p. 213).

Figure 3

The Structure of Plans and Controlling Bylaws under the Alberta Planning Act, 1977



Source: Adapted from Rutter (1978)

In the 1929 Act, zoning was introduced, and quickly became the primary means of controlling land use. Like the American experience, Alberta municipalities tended to employ zoning without the benefit of overriding policy direction.

By the late 1940's however, the land use control system was in danger of "imminent collapse" (Bettison et al, 1975, p. 53). The system was increasingly subject to political influence (Bettison, 1975) and, in Edmonton for example, urban development was occurring in an increasingly random fashion, characterized by mixing of land uses and the scattering and fragmentation of development (Dale, 1969). Land speculation around Calgary and Edmonton following the oil finds of 1947 forced the province to temporarily assume "extraordinary" development control powers such as direct regulation of subdivision (Bettison et al, 1975, p. 92).

These problems led to amendments of the Planning Act in 1950 and 1953, influenced considerably by a consultants' report commissioned by the City of Edmonton (Dale, 1969). The overall thrust of these amendments was to elevate the status of planning. Provisions were made for a municipality to operate under "interim development control" until a general plan and a zoning bylaw were adopted. Although the contents of a general plan were not spelled out until 1960, the 1953 Act clearly required, and authorized, a municipality to prepare a zoning bylaw upon the adoption of a general plan to implement the proposals of the plan. Later amendments of the Act also made clear that a general plan was to have a definite legal effect, by specifying that "no undertaking or public project that was inconsistent or at variance with the proposals contained in the general plan should be attempted" (quoted by Dale, 1969, p. 331). The statute envisaged that during the preparation of a general plan, development control would be carried out with reference to the evolving general plan, and that similarly during the preparation of a zoning bylaw, the adopted plan would continue to guide the use of development control. Subsequent difficulties with the interpretation of these provisions (Laux, 1971 and 1972) suggest that the Act's authors believed the drafting of a general plan to be a simple and short process, and that interim development control would be used only briefly before adopting a zoning bylaw.

In reality, of course, such was not the case. As established in Chapter 2, general plans of the 1950's and 1960's took many years to prepare, due in part to the legislative requirements of comprehensiveness. In Edmonton, for example, the council resolution authorizing the preparation of a general plan was made in 1950 (Dale, 1969, p. 331), the same year that the province authorized the city's use of development control. From then until 1959 little product appeared. In late 1959, the city council created a special advisory commission to expedite completion of a general plan and zoning bylaw. Priority was placed on the completion of the latter, which was passed by the council in late 1961, and covered approximately 80 percent of the city, with the remaining 20 percent (mostly older areas) remaining under development control. Attention was then focussed on the plan, which was released in parts during 1963 and 1964. However, these documents were more a series of studies than a policy statement. The process of creating the latter took a further five years; the general plan bylaw was finally given first reading in 1969, but because it was out of date in some sections, further changes were needed. Final reading was not given the plan until 1971.

The experience of municipalities such as Edmonton with the preparation of their general plans provides one explanation for a changed attitude in the 1977 legislation towards these plans. While up to this time the policy-control link had been made explicit, conformity between plan and implementing bylaws is now no longer required and the role of plans (now termed general municipal plans) has been lessened (Rutter, 1978; Elder, 1979; Smith, 1980). At the same time, however, the preparation of general plans has now been made mandatory for municipalities of over 1,000 population (10,000 in the case of a county or municipal district) (S. 59). Further interpretation of these changes requires explanation of the nature of the general plan.

The Nature of the General Plan

Rogers describes the general plan, as conceived in most provincial statutes across Canada, as resembling a constitution: it "imports a commitment to goals desired by the local authority for its inhabitants", and it is of limited legal effect (1980, p. 45). In Alberta, however, this goal oriented approach has been given less emphasis than the objective of directing the future development of the municipality.

The 1960 and 1970 Planning Acts viewed the general plan in essentially the same manner, requiring the following features:

(1) The plan should describe the manner in which future development or redevelopment of the municipality could best be organized and executed, giving attention to orderliness, economy and convenience.

(2) It should be prepared on the basis of surveys of land use, population growth, transportation and communication needs, public and social services; and, it should include proposals pertaining to the provision of roads, public services, public buildings, schools, parks, recreation areas, and the reserving of land for these and other purposes.

(3) It should contain a map showing the division of land into permitted land use classes, and proposals as to the content of a development control bylaw or a zoning bylaw.

(4) It should show the sequence in which specified areas of land are to be developed or redeveloped, which public services or facilities are to be provided, and should contain a five year capital improvement program for the undertaking of public works.

Although the term "general" plan was employed, the contents required were fairly specific. Early planning studies of the 1960's, for example, tended to great detail, especially in describing the existing situation. This specificity was perhaps associated with the Act's requirements for conformity between the zoning bylaw and the plan.

The 1977 statute's provisions governing plan contents are considerably briefer and more general, with no separate purpose statement:

(1) The plan should describe the land uses proposed for the municipality.

(2) The plan should describe the manner of, and the sequences proposed for, future development in the municipality.

(3) The plan should identify those areas suitable for area redevelopment and/or area structure plans. (S. 61)

A municipality is no longer required to include maps, and it is now free to choose its manner of plan preparation (S. 44). In 1979, the statute was amended to delete the requirement for a plan to show sequence of development, replacing S. 61(2) with the phrase "the manner of and proposals for future development in the municipality".

The loosening of the guidelines from 1970 may have been due to the province's desire to strengthen local autonomy, delegating to municipal councils the responsibility to determine the contents of their general plans (Murchie et al, 1978, p. 9). Certainly, though, there had also been sufficient criticism of the "shopping list" approach to the plan, implying as it did the possibility of comprehensiveness. For example, one critic (Chanter, 1976, p. 11), in a report evaluating the effectiveness of general plans in municipalities of under 5,000 population, declared that the general plan concept was succeeding neither as a means of providing citizens in a community with an overall sense of direction, nor as a means of providing a council with the guidelines it needs for daily decision-making. It was argued that a more useful replacement would be the policy plan, based on local issues, with less emphasis on comprehensive surveys or studies.

The changes of the 1977 Act may therefore also reflect the province's desire to make the general plan a strong policy device. Certainly by making the plan mandatory, and with the more flexible attitude to contents, the province has recognized the importance of broad overviews and made it possible for municipalities to prepare problem-oriented, strategic plans. Furthermore, the weakening of the link between policy and the land use control system - while perhaps going too far in that the control system can now stand on its own -

has made unnecessary the specific detail which had frequently rendered plans irrelevant in the past.

However, the legislative approach to general plans can also be criticized. Both the 1977 Act and its predecessors imply that a general plan can present a snapshot picture of the municipality in the future (1970: S. 15(c)(1); 1977: S. 61(a)(1)). In this respect, the plan is conceived as being static. There is also an implication that the future is certain and that the municipality has complete, or significant control over its own destiny (1970: S. 95(c)(iv); 1977: S. 61(a)(ii)). As concluded in Chapter 2, this approach tends to produce a document which it is then thought will guide development by the mere fact of its existence.

This point leads to the second area of weakness, the legislation's approach to plan implementation. The link between policy and the regulatory devices has been examined already. But, as the discussion on land use guidance systems in Chapter 3 demonstrated, other tools are available to implement plans, in a more positive manner than regulation. However, the statute does not recognize the role to be played by housing development, service extension or road construction, or even more indirect tools like taxation policy, in influencing land use. The implication is that the plan is not perceived as an instrument for bringing about the future; it is merely "rules and regulations for the use of land" (Rutter, 1978, p. 36). This attitude means that the greatest impact which a general plan can have is by its designation of appropriate areas for different types of development. Legislation of previous years, which had required the plan to include a staging program and a capital improvement program, created the potential for a stronger influence in directing urban development. The 1979 amendment, by deleting all reference to the term "sequence", has further weakened the role of the plan.

The legislation provides for area structure and redevelopment plans to implement general municipal plans. The area structure plan's purpose is to provide a "framework for subsequent subdivision and development of an area of land in a municipality" (S. 62(1)). It describes the proposed sequence of future development, proposed land uses (either generally or specifically), and proposed population densities. The area redevelopment plan can be used for a variety of purposes including preservation, rehabilitation or improvement of an area (S. 63). It is to contain a statement outlining plan objectives and method of achievement, proposed land uses for the area, and proposed public services and roadways. Both plans are more specific than the general municipal plan and thus have the potential to bridge the gap between policy and control. However, presently under the legislation, the land use bylaw has greater authority than either of the plans (Figure 3).

One final weakness of the legislation is its failure to recognize the need for a dynamic quality in plans. For example, a plan may not be specific enough to guide the decision on some proposed amendment to the land use bylaw, but it should outline the way in which the decision can be made, and the various interests concerned with it participate in it.

Flexibility of the Control System

Alberta has been one of the few provinces in Canada to experiment with the British system of development control, although it has been pointed out that in practice municipalities have employed it like zoning for the most part (Alberta Municipal Affairs, 1973, pp. 19-20). Nevertheless, it has afforded the potential for flexibility which municipalities in many other provinces have not had. In Ontario, for example, local governments have had to resort to creating a "subterfuge development permit system" in order to have increased latitude in negotiating desired development (Cullingworth, 1978, p. 93). The discretionary Alberta approach has also been lauded by authors speaking on behalf of private enterprise (Goldberg and Horwood, 1980, p. 92).

At the same time, however, the dual system in which development control was combined with zoning was the source of criticism, confusion and litigation in the late 1960's and early 1970's (Alberta Municipal Affairs, 1973, pp. 19-20; Laux, 1971 and 1972). The complaints were familiar: zoning was unable to adapt quickly enough to changing circumstances and was contributing to monotony in urban design. On the other hand, development control, if it were administered in its most extreme form, would create too much uncertainty and instability. The resolution of these concerns was one of the motivating reasons behind the preparation of a new Act in 1977.

The land use bylaw is the new statute's replacement for this dual system; it is comparable to zoning, with the added possibility, through the direct control district, of greater flexibility. Speculation varies as to how the new system will operate. On one hand, Rutter (1978, p. 26) forecasts that the land use bylaw will not differ in its operation from the mixture of zoning and development control under the previous statute, and Rogers (1980, p. 5) interprets the change as a reversion to traditional zoning bylaws. On the other hand, Elder (1979, pp. 441-445) contends that the new Act allows as much opportunity for flexible and innovative zoning as did the 1970 Act, and that municipalities have not seized opportunities which have existed all along. His analysis suggests that development control, conditional zoning, planned unit developments, bonussing systems, and holding zones are all possible under the 1977 legislation. Smith (1980, p. 121) reaches a similar conclusion, stating that the potential exists for municipalities to review complex projects on an individual basis if they desire . The point is reinforced by planners in both Calgary and Edmonton, who cite as the main obstacle to taking advantage of this flexibility the lack of policy direction from plans.

THE EDMONTON 1971 GENERAL PLAN

Contents of the Plan

The 1971 plan was prepared under the framework of the 1960 legislation. In synthesizing a policy document out of the wealth of material published in 1963 and 1964, the planners decided to prepare what they termed a policy plan to guide urban growth decisions, rather than a detailed description of an end state. In the words of its introduction, the plan was intended to "provide a set of objectives and principles upon which decisions concerning the development and redevelopment of Edmonton may be based, and, as such had an emphasis on 'how' as opposed to 'where'" (p. vii).

These intentions, and the four general requirements of the Act, resulted in a plan with the following characteristics:

Development guidelines. The document was organized according to specific land use topics such as residential, commercial, industrial, and transportation. It included background chapters on population, employment and trends in urban growth, and chapters on special themes such as the central area and urban renewal.

Within each chapter, some background material was presented, followed by a set of objectives, and then a set of principles which were to guide decision-making. Using the chapter on industry as an example, the background material explained the nature of Edmonton's economic base, the location of industrial activity, employment and land requirements forecasts. An example of a typical objective would be "to ensure that there are adequate reserves of industrial land for all anticipated requirements, and particularly for heavy industry" (p. 7.4). Objectives were not related to principles, which in many cases were no more specific, nor were they linked to other parts of the plan, such as programming. An example of a principle is: "Industry should be diligently sought out and the opportunities that exist for industry in Edmonton should be made known without promiscuous subsidization or the offering of other financial incentives" (p. 7.7). Presumably, it was intended that these objectives and principles fulfilled the statutory requirement to describe the manner in which future development was to be carried out. Certainly, the plan replicated the Act's emphasis on orderliness, economy, and convenience, by using these words time and again.

Preparation Process. Extensive surveys had been carried out during the early years in which the plan was being prepared; while this fulfilled the requirements of the Act, the surveys were largely out-dated by 1971. The plan did not contain specific proposals, as required in the statute, for schools, roadways, or other public works.

Maps and Directions to the Control System. The plan included a number of maps: a schematic sector map to 2000 showing residential, industrial and other uses, and 1981 "land use structure plans" illustrating the proposed pattern of development for 1981. A colored land use map depicting projected development in 1981 which had been included by planners was rejected by city council and excluded from the plan. The plan did not include directions for the content of a zoning bylaw or development control bylaw, other than an occasional reference to a study which would be needed - for example, pertaining to the standards of apartment development. In summary, the Act's provisions were partly met, although the maps were too general to aid the land use control system in making development decisions.

Staging Program. A generalized map outlining development staging was included, showing the direction and sequence of both residential and industrial development for periods into the future. There was no further detail, however, as to the types of public services to be provided, and when. In consequence, the chapter on capital improvement programming merely outlined how such a program was to be developed. A more detailed staging plan had been prepared by planners in 1969 but was rejected by city council.

This brief sketch of the 1971 plan shows that, in terms of the Act, there were some deficiencies, mostly relating to lack of direction for future development. However, this omission was intentional on the part of the plan-makers: they contended that it was not appropriate for a plan spanning a period of more than ten years to include concrete proposals for development at specified dates in the future (p. vii). Such proposals were to be incorporated into district plans and outline plans; a district planning program was to be initiated after approval of the plan for older areas of the city (p. 11.4).

Assessment of the Plan

The strengths and weaknesses of the document can best be assessed in terms of the events which took place after the plan's adoption: its record in guiding decision-making, whether it was implemented, and the value of its policies.

Influence on Decision-making. Until 1973, attention in the planning department was directed towards preparing two major additions to the plan - the chapter on transportation, and a number of policy statements pertaining to river valley development. At this time, responsibility for the plan's maintenance rested in the research and long range planning branch of the department, the branch which had prepared the plan. Besides these amendments, the primary use of the plan was for infrequent review of major rezoning applications, to evaluate consistency with the plan's policy statements. The view in the branch was that the principles of the plan spoke for themselves, and that other planners in the department should be able to use the plan in their daily development control activities. A series of irregular branch meetings during 1974 discussed the effectiveness and use of the plan, with a view to developing an approach to its improvement (Minutes, file G25-02). These meetings centered on the skeptical attitude towards the plan of most other planners.

The problem was attributed, in part, to the generality of the policy principles, which could be construed in many different ways for any given development proposal. Often, two or three contradictory policies could be found to apply, with no direction as to priorities. In addition to the plan's lack of direction on specific development decision, it did not guide planners in the use of various land use control instruments - for example, in designating and controlling density, or in guiding innovative residential development.

Implementability. The major weakness lay in the fact that policy principles were difficult to translate into specific actions, and even when it was possible to do so - such as undertaking a study - responsibility had not been identified in the plan. Planners in the general plan program could have coordinated implementation and worked within the department to initiate some of the specific actions and studies identified by the plan, but they did not do so. For example, the district planning program identified in the plan was never initiated.

In part, this was due to a lack of continuity in staff, arising from the departure of original planning team members, and subsequent inadequate briefing of new staff. The lack of an operational system for keeping the plan active also contributed: for example, staff quickly forgot what commitments had been made in the plan, since most of them were hidden among the numerous statements of policy. Even amendments were difficult to keep track of: many staff were uncertain of the status of some of the maps which had been debated at city council. Finally, the lack of follow-through can be also blamed on the pressures of daily operations: the research and long range planning branch acted as a policy study group (in part to maintain credibility), and staff resources were continually being shifted to short-term projects.

Value of Plan Policies. The team which prepared the 1980 plan had great difficulty evaluating the effectiveness of the 1971 policies. The plan had set few targets; objectives and principles did not have performance indicators; and there were no mechanisms for obtaining feedback. In the period since the plan's adoption, no monitoring of the plan had occurred - neither in respect to forecasts, impact of plan policies, nor its rate of implementation. Nevertheless, based on their own perceptions, and their understanding of what was of concern to citizens, council and other departments in the city administration, planners did make some evaluative comments (1980 General Municipal Plan, pp. 2-4).

Above all, it was felt that the 1971 plan did not alter the direction or manner of growth from that which would have occurred had there been no plan. This was not necessarily an indication of failure on the part of the plan, for it contained no intimations that it wished to alter the trend. Specific planning policies evaluated included those governing residential development in the suburbs and redevelopment in older parts of the central city. Suburban development policies respecting mixing of residential densities were pointed to, since they had been the focus of criticism by citizens. Planning policies governing redevelopment were claimed to have contributed to the destruction of two old neighborhoods. Finally, the lack of a staging program had meant costly simultaneous extension of city services in several directions at once.

The main theme which emerges from these comments is that the 1971 general plan was not perceived as being a tool for actively shaping the direction of future development of Edmonton. Instead, it merely reflected and embodied existing development trends and planning policies. In part, this may have been due to the legislation, which did not encourage municipalities to control land use in the sense of directing growth, nor did it convey a sense that a general plan could be a powerful tool to accomplish this. Nevertheless, the legislation did provide for a municipality to attempt to control its development, through specifying the staging and capital improvement program components of a general plan. Ultimately, therefore, part of the responsibility for this use of the general plan in Edmonton lies with those responsible for its preparation and adoption: planners and councillors. Since the plan recommended by the administration to council had contained a staging program, it is the councillors who chose the more passive role for the plan, rather than risk experimentation with stronger controlling policies.

POLICY AND PROGRAM REVIEW IN ALBERTA LEGISLATION

Legislative Attitudes towards Review

Chapter 2 developed a theoretical view of planning as a circular control and review process. Under Alberta planning legislation, the continuous control function is provided by the development permit and subdivision approval process. There is little in the legislation which suggests the necessity of continuous review, however.

Most analysts of the legal system stress that law is always a balance between the need for guidance, specificity and commitment on the one hand, and the need for flexibility, review and capability for change on the other (Rogers, 1980, p. 47). The Alberta planning legislation has leaned towards the former position: it does not actively encourage the continuous evaluation of the effects of land use control or plan policies.

The 1970 statute foresaw the possibility that a plan might become out of date, and dealt with this eventuality by requiring a complete review once every five years after its adoption (S. 97). Similarly, a discussion document released in 1974 argued the need for a municipal council to keep its plan in a "current state" (Alberta Municipal Affairs, 1973, p. 18). The problem with this approach, as the experiential evidence summarized in Chapter 2 pointed out, is that a complete review on such an infrequent basis amounts to a complete plan preparation exercise. Furthermore, the scope and magnitude of a ~~traditional~~ comprehensive plan makes its formulation such an arduous task that it is out of date even before it is adopted. The plan remains irrelevant.

Perhaps for these reasons, or possibly because of the theme in the 1977 statute to increase municipal autonomy, the Act no longer requires a municipality to regularly review and amend its general municipal plan. Instead, it is totally silent on the question: municipalities are left to identify for themselves the need for monitoring and review mechanisms, and to develop systems to keep their plans current.

It would be misleading, however, to leave the impression that the legislation views plans as totally unchangeable. The general municipal plan, area structure plan, and area redevelopment plan are all adopted by the municipal council as bylaws, in the same manner as the land use bylaw. Any bylaw can be amended, although the process is a lengthy and costly one, involving the same procedures as for the original adoption. The amending bylaw, once drafted, must be reviewed by a municipality's lawyers for any questions of legality. It must be advertised, the council must hold a public hearing, and it is not deemed passed until it has had three readings.

Some have argued that this cumbersome process increases unnecessarily the rigidity of planning; it is argued that treating the plan as a statute requires specificity and is inappropriate for a document which is to be policy oriented and hence general (Smith, 1980, p. 3). A number of Canadian municipalities are therefore moving to the view that more flexible and effective planning could be achieved by the formal adoption of plan policy statements by resolution rather than by bylaw (Rogers, 1980, p. 39). This is not possible under Alberta legislation.

The main other means by which plans and their implementing tools can be reviewed is through mechanisms for public comment. As Chapters 3 and 4 observed, many believe that in citizen participation lies the greatest hope for increasing the responsiveness of planning, and injecting innovative ideas and values into decision-making. Traditionally, Alberta legislation has formally recognized the right of the citizen to appear and make representation at a public hearing on a bylaw. The 1977 Act extends this right and mandates (S. 60) that a council provide an opportunity to persons affected by a general plan to make "suggestions and representations", in addition to the normal bylaw approval process. The statute's requirements for citizen review may not extend far enough: for example, the processes for preparing area structure or area redevelopment plans are not required to involve citizens. But, because these plans are more localized, they may in fact be more effective means for citizen comment on planning policies (Elder, 1979, p. 457).

The Review of Edmonton's General Plan

The 1970 Act's requirements for a five year review of an adopted general plan, coupled with the growing dissatisfaction with the 1971 plan, led the planning department to gradually increase resources, from 1975 onwards, to a program to review the plan. A number of uncertainties related to the provincial statute were latent in the program from the beginning and had the effect of extending the early stages, when terms of reference were being explored. These uncertainties included:

(1) Meaning of the five-year review requirement of the Act. The general plan's term was scheduled to "expire" in May 1976: if a new plan was not adopted by the city council by this date, the question arose of whether the present one might be declared invalid if challenged in the courts, with a ripple effect to the land use control system. Eventually, legal opinion concluded that even were the plan struck down, the land use control system could be successfully defended. This conclusion furthered the skepticism over the utility of the plan.

(2) The impact of the forthcoming new planning act. Prior to its release in 1977, there was uncertainty as to how the new act's provisions pertaining to general plans might influence the timing of

the review. Two issues were concerning the planning department. If the five year review requirement were retained, the municipality would be in a less defensible position if the plan were submitted to legal challenge. This uncertainty resulted in some within the planning department arguing that the review should be completed rapidly, and only minor amendments recommended to city council.

The second issue pertained to the role of the general plan in any transition from zoning and development control to a new land use control system. As events transpired, the 1977 statute required that a new land use bylaw be passed by April 1980. Although it did not require the prior passage of a general plan, those in the plan preparation branches of the department argued for this sequence. Essentially, this meant that a draft general plan had to be released by the spring of 1979.

The major ramification of these uncertainties was with respect to the scope of the review (and, by implication, how long it should take). The following chapter reviews the development of terms of reference for the project, and the progression of planning activities.

Chapter 6

PLAN REVIEW AND PREPARATION IN EDMONTON

The focus in this chapter is upon how, and whether, the plan review program constructed the foundations for implementation and monitoring. The activities of the plan preparation exercise, as well as their results, will be assessed according to three types of criteria:

(1) Objectives specified for the plan exercise. These include the initial perception of what was required in a general plan program; how this perception influenced the planners' activities; and whether the results were sufficient in terms of the perception of what was required.

(2) Legislation: whether the initial perception of what was required, and the document produced, were appropriate given the provisions of the legislation.

(3) Planning theory: whether the activities and results were consistent with the theoretical criteria developed in Chapters 3 and 4.

While the main focus of examination will be those activities relating to the plan's implementability and the manner in which it would be monitored, it is virtually impossible to do this without reference to some of the policy-specific activities of the program. For example, the content of plan policies influenced the directions taken in implementation and monitoring. As well, a decision to allocate the limited resources of time, knowledge and staff to one activity necessarily meant that other activities could not be pursued as intensively.

The description of the plan process is based on a number of sources. Chief among these are the reports produced by the general plan project, both published and unpublished. In addition, correspondence and minutes, budget information, and interviews with staff all provided greater detail. The first part of the chapter describes the process by which program objectives were developed; in the second part the actual planning activities are outlined.

THE DEFINITION OF PROGRAM OBJECTIVES

Two types of program objectives can be distinguished: those relating to the desired nature of the plan and the activities required to prepare such a plan; and those relating to the specific land use (and other) issues to be dealt with in the plan. The focus in this analysis is upon the former.

Activity during 1975

The first conceptual work on the nature and direction of a review project culminated in an internal paper completed in June 1975. The 1971 plan was evaluated, and the conclusion reached that its principal weakness lay in its lack of a "middle range" of policies to link long range policies and guidelines to more specific, action-oriented statements. In particular, it was argued that the plan should become more problem and achievement oriented. It was considered essential that there be more interaction between planning and budgeting processes, as a means of improving implementability, and that the general plan should include a "development strategy" - a series of programs to be achieved in a given period of time. This would rectify what was thought to be a serious imbalance between the strong legislative authority of the plan and its limited administrative authority in practice. It was also argued that the general plan, in order to be a "true guide to growth", should identify where growth should go, as well as how development should take place. The report recommended the preparation of a new plan over a staged process of three phases:

(1) The preparation of a "policy plan" outlining desirable development goals for Edmonton. This plan would be essentially a revision of the objectives and principles of the 1971 plan, but would be based on an evaluation of current significant issues.

(2) An analysis phase, focussing on the issues raised in Phase (1).

(3) The preparation of a strategy for development, indicating programs to be undertaken within a five year period. The strategy was to be derived from longer-range statements and middle range principles, and to be easily translatable into the annual budgeting process.

The proposal concluded that such a project would require more than six years to complete, with the existing staff complement, and recommended that a request to senior governments for funding be pursued. Such a course was justified because of the special and innovative nature of the project; the concept of the development strategy and the linking of objectives to programs exemplified the new approaches being considered.

This first report illustrates that, from an early stage in the review process, the concern was with making the general plan useful for day to day decisions. The solution was believed to lie in the link between planning and budgeting: by incorporating a development strategy into the plan, along with detailed directions for programming the necessary municipal actions, it was believed that the plan could be successfully implemented.

Activity during 1976

No further action occurred for some time, due to other work priorities. By early 1976, however, the research and long range planning branch had concluded that a major review project, along with extra funding, could indeed be justified. Awareness of the weaknesses of the 1971 plan was growing within the department and although there was considerable doubt as to the value of a long-range, general plan, the review was required under the Act and had to proceed. The attention of the branch therefore turned to preparing an application to the federal and provincial governments for a project grant. It was at this point that I became involved in the planning team. A project proposal was ratified by city council in May 1976 and was subsequently forwarded to the senior governments, represented by the Alberta Department of Municipal Affairs and the federal Ministry of State for Urban Affairs. Council's commitment to provide twenty-five percent of the cost of the plan review, contingent upon senior government funding, was later construed to mean support for the entire concept. At the May 1976 council meeting, however, there had been no discussion of the project proposal nor any separate resolution as to the inherent value of a general plan review.

The grant application proposed a plan process aimed at preparing five documents, each resulting from a separate stage in the plan preparation exercise. The first would outline objectives; the second, issues; the third, alternative strategies for development; the fourth, the selected strategy; and, the fifth, the implementation guidelines and actions. These five documents would then serve as the basis for subsequently preparing a new general plan. The report drew attention to six factors which would characterize the review process and thus make it different from the 1971 plan:

(1) A conscious examination of alternative growth strategies for Edmonton.

(2) Involvement of the community in reviewing the alternatives.

(3) Participation by senior levels of government.

(4) Development of a land use model.

(5) Involvement of the total city administration.

(6) Development of a monitoring and implementation program.

In analyzing the approach outlined in this report, three points stand out. First, the proposal was consistent with the comprehensive-rational tradition of optimization; for example, the selected development strategy would "best solve urban problems". Second, the output proposed for the plan exercise was oriented too much to explaining how the plan was produced, rather than what its implications might be. Third, the proposal was consistent with some of the elements (although not all) of the 1975 report, primarily in its emphasis on the monitoring and implementation linkages.

Since council's financial support for the project had been contingent on senior government funding, little action was possible on the review until the outcome of the application was known. In February 1977 the provincial government announced that it would grant seventy-five percent of the estimated project costs of $765,000, effective April 1, 1977. It was forecasted that the project would take two years, requiring ten new positions to be added to the existing four.

Activity during 1977

Four main areas absorbed staff attention during 1977:

(1) clarification of project scope;

(2) committee activities to bring the rest of the planning department, and other city departments, into the project;

(3) hiring staff and initiating the project in earnest; and

(4) background research.

Even after the submission had been forwarded to senior governments for funding, some planners were concerned that the project scope (especially the preparation of a development strategy) was too wide to meet the spring 1979 deadline. The urgency of the deadline had been heightened by the current bid by the city to annex land on its outskirts; the application was expected to go to hearing during the spring of 1979, and a completed plan outlining the need for additional land was considered desirable evidence.

The planning team's view was that, notwithstanding the deadlines, the objectives outlined in the project proposal could still be met. However, terms of reference were kept deliberately vague, on the grounds that the issues to be examined in the plan process should be influenced by the concerns of citizens and other city departments.

In June 1977 a report was completed which dealt in greater detail with the terms of reference and desired approach to the review. It had been intended that this report be used to excite other city departments about the plan program, and to convince them that it would be to their advantage to participate in it and cooperate with the planning department. Unfortunately the report was weighted with detail, and focussed far too much upon minor issues, and so was never formally released; nevertheless, the two objectives it specified for the review did influence subsequent work.

The first was to produce a development strategy for Edmonton - a set of policies, guidelines, and actions which together would help the city chart a course towards a desired future, rather than necessarily falling in with the likely trend. It was made clear that, while the development strategy would have to contain goals and objectives, it was to be action-oriented, specifying programs and program targets.

The second objective was consistent with previous reports, and stressed the desire to focus some of the review effort on the organization of procedures for plan implementation and monitoring. The mechanisms available for accomplishing these functions were seen as being more numerous than had been envisaged in June 1975, when only the budgeting process had been identified. The new list included the following:

(1) The budgeting process;

(2) A review mechanism whereby major development proposals would be evaluated against the development strategy;

(3) Establishment of a responsibility to regularly monitor population, employment, land use and transportation trends, as well

as the supply of and demand for municipal services;

(4) Regular amendments to the plan, as needed, arising from:

(a) the identification of significant market trends, based on regular monitoring;

(b) the need to change the plan's development strategy as a result of any unforeseen major new developments;

(c) the preparation of budget proposals by other municipal departments resulting in a shift in the strategy; and

(d) the identification of a need for change in policy by city council or special interest groups.

In retrospect, it can be seen that the two broad objectives were closely related to each other, in that the action-orientation of the development strategy depended upon implementation and monitoring programs. The report did not make this clear however.

In an attempt to generate commitment to providing the planners with information, the report was circulated to a few other departments in the city administration, including the corporate policy planning office. This unit, reporting directly to the head of the city administration (the chief commissioner), was responsible for developing a corporate planning process - the coordination of the policies and actions of city operations from both a short and long range perspective. Because this mandate of comprehensiveness was similar to that of the general plan's, a close working relationship was deemed important to prevent duplication of effort. In addition, the planning team hoped to benefit from being associated with the authority of the corporate planning office.

Another method used to develop commitment to participating in the project, as well as to help define its scope, was the creation of three advisory groups made up of city and other agency representatives. The committees represented the planning department, other city departments, and other government agencies. They met irregularly into the late spring of 1977, and were asked to comment on the terms of reference being developed for the project.

In retrospect, both the report circulation and the committee structure inhibited communication and were ineffective methods for obtaining advice on project scope, or for generating commitment to it. Informal, ad hoc meetings would likely have yielded more advice to the planning team, as well as a more effective two-way dialogue. One factor in particular which lessened the enthusiasm towards the project was the existence of uncertainty and fear: uncertainty as to whether it would produce anything of help to other departments' operations, and fear that it would encroach upon their areas of responsibility. This latter arose from the comprehensive, action-oriented nature of the development strategy proposed for the general plan, and was expressed by a number of departments, including the corporate planning office.

Although there were uncertainties as to project scope and objectives, the manner in which other departments would be involved, and the specific nature of work to be undertaken, by September 1977 a team of planners was in place. These staff had almost all been hired from elsewhere and were therefore unfamiliar with Edmonton or with municipal procedures. This was to cause delays in the project. Background work had already been done by the permanent staff on population, the economy, and the land use model, and the efforts of the new planning team were first focussed upon preparing a set of issue papers building upon this background work. It was intended that these reports would define terms of reference more specifically for each of the topics covered.

Activity during 1978

It took some time for the newly formed team to develop work routines. One problem which arose quickly was the question of the location of the project within the planning department organization structure, its reporting relationships, and its authority. Efforts to resolve this problem absorbed staff time, and production of the issue papers proceeded more slowly than had been programmed in work schedules. By early 1978, almost no reports had been prepared, and in consequence, the planning team faced a growing attitude of non-confidence. This was exacerbated by pressures from within the community to examine the operations and staff qualifications of the entire planning department.

In the summer of 1978, the mayor reacted to these political pressures, engaging a team of consultants to review the department's organization, communication procedures and staff qualifications, and imposing a ban on new appointments to the planning department. He also focussed specifically on the general plan project and formed a committee of community representatives to advise him on the plan.

These various events slowed the plan preparation process and contributed to a high number of staff resignations. Thus, by the summer of 1978, the time available to produce the plan had been shortened considerably. In consequence, the approach to the review narrowed down to the strict requirements of the Planning Act: a land use plan; policies for future land development; a schedule showing the staging of future development; and, the designation of areas for redevelopment and structure plans.

At the same time, the importance of implementation and monitoring was not forgotten, as evidenced by a September 1978 report to city council:

> The revised work program reorients the Plan towards a strongly applied perspective, with the intent of ensuring that proposed policies and development strategies are readily implementable through clearly defined programs, or the process to establish required programs is clearly established....
>
> (p. 1)

What had been narrowed, though, was the manner of ensuring implementation. Instead of giving as much weight to developing procedures for plan execution and monitoring as that given to developing the strategy, the revised work program indicated that these procedures were to be developed after the plan was prepared and approved by council. This is an important distinction.

The shift in approach had an immediate implication for the concept of development strategy. During the work of the ensuing months, it was to become less a program-oriented course of action, and more a land use plan in the traditional sense. There were also implications for staffing: the original intention to dissolve the project team upon council approval of the plan, leaving only a skeleton staff to coordinate implementation, had to be discarded. Instead, the short-term positions were transformed into permanent ones. Finally, the opportunity to experiment with alternative ways of defining issues and developing policy had been lost.

By September 1978, then, the approach to the plan had evolved considerably from the first vague ideas of several years earlier. The revised terms of reference were endorsed by city council, and staff were assigned to the planning team from other units in the department to carry out the project. The original spring 1979 deadline was less than a year away.

Conclusions

The period 1974 to 1978 was characterized by several features:

(1) A shift towards a plan preparation exercise rather than a review, caused in part by the difficulties of evaluating the 1971 plan, and reflected in the change in the name of the program from "general plan review" to "general plan project".

(2) A narrowing of the approach. By September 1978 the initial terms of reference from May 1976 had been modified as follows:

(a) Conscious examination of alternative growth strategies. The range of alternatives to be considered was narrowed by the constraint of feasibility.

(b) Involvement of the community in input and review roles. The September 1978 report emphasized the importance of informing the public about the general plan, and stated that an outside agency was to be hired to solicit feedback from citizens.

(c) Participation by the senior levels of government. This element of the project was dropped.

(d) Development of a land use model. While it was recognized that a model might be a useful element in a monitoring program, work on it was postponed until after completion of the plan.

(e) Involvement of the city administration. Efforts to involve other departments, as well as the rest of the planning department, had been declining since 1977. The 1978 approach was that others were to be involved on an ad hoc basis whenever information was required.

(f) Development of a monitoring and implementation system. This element was postponed until after the plan was approved by council.

(3) A long start-up period. From June 1975 until the fall of 1978 the only reports produced by the project were outlines of terms of reference, study proposals, and work schedules. This was the result of a combination of factors:

(a) The decision to approach senior governments for funding. Had the department accorded the general plan a higher priority from the beginning (by transferring staff internally, for example, as was eventually done in the summer of 1978), the project could have been initiated within two or three months. Or, if council had been asked for special funding, staff could have been hired within six to eight months. As it was, the decision to apply for grant funding meant essentially a delay of twenty-one months, taking into account the time required to negotiate, prepare a submission, wait for a response, obtain budget approvals, and hire staff.

(b) The use of inexperienced staff unfamiliar with municipal procedures. Time was spent on staff development rather than on plan preparation.

(c) Uncertainty as to scope and timing of the plan, given a new planning act, the annexation application, and the preparation of a new land use bylaw.

(d) Uncertainty as to authority and autonomy of the project group. This meant that energies were diverted away from plan preparation to resolving managerial issues.

(e) Uncertainty as to the role to be played by other departments. The attempts at forming committees absorbed considerable staff resources, with no tangible result in the end.

(f) The focus upon academic type research, rather than action-oriented work. This effort might have been better spent in plunging into plan preparation, and developing some quick results which could have been used to convince others in the organization of the project's value.

PROGRAM ACTIVITIES FROM SEPTEMBER 1978 TO SEPTEMBER 1979

The long start-up period and the narrowing of program objectives had not changed the original spring 1979 target for plan completion. This section is devoted to describing the activities towards this objective. The key question underlying the analysis is how, within constraints of time, staff and knowledge, a planning agency can evaluate and develop strategic policies while, simultaneously, developing the procedures for their implementation and monitoring. The section first begins by describing the activities employed to draft policy, and then discusses implementation and monitoring.

The Preparation of Land Use Policy

The general plan policy preparation process is assessed against the model described in Figure 2. The typical sequence outlined, in part, a linear process beginning with identification of existing policy, and continuing with definition of problems, broad scanning and sequential generation of alternatives, to the development of policies and actions, and the final review and feedback phase. At each step in the process, the model provided for learning with citizens. Policies developed out of such a process should meet a number of conditions to be effective, relating to the need for clear statements of purpose and assumptions; linkages between policies of varying levels of specificity; indicators enabling monitoring of performance and unexpected consequences; statements explaining the link to action programs and decision processes.

Issue Identification. The process of identifying issues involves comparing an actual situation - either present or future - with desired states (goals). Faludi (1973a, p. 82) points out that issue identification and goal formulation are essentially opposite aspects of the same operation. In the Edmonton case, no explicit goal formation or clarification exercise was carried out. Instead, issues were identified through a process of forecasts, interpretation of the forecasts in light of a set of implied goals, and focussing upon the resultant "gaps".

(1) Forecasts. Forecasts were prepared in traditional areas such as population, employment, housing, land absorption, and retail and office space, based upon an extrapolation of existing trends. The process was weak, in three respects: there was an inadequate information base to describe the current situation, since there had been limited monitoring of development since the 1971 plan; there was insufficient documentation of existing policies, especially what was being practised as opposed to what was in writing; and, too little was known about cause-effect relationships.

The forecasts were based upon an extrapolation of trends under existing policies, an approach which is simple and makes revisions straightforward (a consideration for subsequent monitoring). However, it may well result in a significant misunderstanding of what Chadwick refers to as "the trajectory of the system". For example, a common assumption underlying the extrapolation was that existing policies and market practices would continue unchanged into the future. This weakness in the forecast method was serious since it meant that alternative scenarios encompassing variations in the economy, social values or senior governmnet policy were not considered.

(2) Goals. Issues were identified without any conscious evaluation of goals, although some attempt had been made in the summers of 1977 and 1978 to develop goal statements. These papers remained unpublished: the goals they described were "motherhood", and were of limited utility for identifying issues. Some other goals work later was to be reflected in the plan, but these reports (drafts dated November 1978) were not available at the time issues were being identified, in the spring and early summer of 1978.

In summary, the goals used to interpret the forecasts and define issues were implicit: they had never been clarified, nor synthesized and formally expressed in a single document. Nor had they been ratified by the municipal planning commission, the commission board, or city council (either formally as a council, or informally as a group of aldermen). There had also been no discussion with the community; the citizen participation program - although a long time in discussion - did not become "public" until February 1979. By this time the issues (and, by implication, the goals) which were the focus of the plan had already been determined by the plan team.

There was one attempt by the plan team to discuss its assumptions about goals with an outside group - the advisory committee appointed by the mayor. One of the reports written in November 1978 (Draft Background Chapter 1) was forwarded to the committee, but little feedback was received. This paper made explicit the bias of the team toward inner city preservation and rehabilitation and against suburban "sprawl" development; the perception that district planning could resolve conflicts between redevelopment and preservation in inner city areas; the attraction towards the concept of a multi-centered city; and, the focus on energy conservation.

An example of one issue will illustrate the process of issue identification and implicit goal formulation. The extrapolation of trends indicated that Edmonton could soon be expected to have developed the remaining industrial and residential land within its boundaries. The issue extracted from this forecast was a shortage of land; the implied goal was that the city would attempt to provide for all growth demands. Other goals which were significant influences upon the eventual plan included: the provision of a broad range of urban services; energy conservation; minimizing the financial impact of urban development upon the city treasury; minimizing transportation congestion; and minimizing the use of agricultural land. The generality of these goals is linked to the generality of issues defined, such as the increasing cost of providing services, or forecasted increases in transportation congestion.

(3) Methods of Analysis. The identification of issues required backwards analysis, linking the issues causally to the

planning policies deemed to be responsible. These policies were then to be the focus of the next stage of the process, the generation of alternatives. But, as has already been pointed out, in many areas formal statements of existing policy did not exist. Furthermore, there was little causal analysis (that is, using planning theory) of the relationships between policies and issues upon which to build; in a number of instances, the only justification for linking a given policy to a particular issue lay in the existence of a similar hypothesized relationship in a planning exercise for some other city. Both factors weakened the analysis of policies contributing to issues.

(4) Link to Monitoring. During the plan preparation exercise, the approach taken to issue identification was a "one shot" one. Issues were defined, and then the plan process proceeded forward into the next stages. There was no attempt to establish any kind of a system to monitor the environment for issues on a continuing basis.

(5) Output. The issue identification phase resulted in an internal technical report, "Planning for Edmonton's Future Growth: The General Municipal Plan" (May 1978). This was subsequently used as the basis for a set of introductory general issue papers, prepared in the fall of 1978 and released to citizens in February 1979, and a series of technical papers (released in the summer of 1979).

(6) Conclusion. The overriding conclusion is that issue identification and goal formulation were isolated from any of the decision processes in the municipal organization, and, in consequence, reflected the biases of planners on the team.

Generation of Alternatives. The concept of an alternative implies the description of a state other than the existing or likely future one, influenced by policies other than current ones.

(1) Method. The traditional method for generating alternatives is to identify existing policies in the key problem areas, and then to develop a range of alternatives for each policy, as a step towards their integration into scenarios. In the Edmonton case, the alternatives were oriented to land use rather than policy. For example, the scenarios were created by varying four factors which were considered to have key importance to the set of land use issues: proportion of total residential development built in the inner city; proportion of office space built downtown; suburban densities; and whether or not the staging of suburban development was controlled by the city. The first three factors were static in the sense that they were output rather than input, or policy, oriented.

Implementability was a key constraining influence upon the generation of alternatives; those considered to be not feasible were rejected by the planning team. Here was an opportunity where others in the department, or the municipal organization, could have been involved in defining what was politically and practically possible, but this rarely happened. The isolation of the plan-making unit meant that the scope of alternatives was narrower than it might have been had the team had greater insights into the tools available, or been exposed to views questioning their perceptions of feasibility.

Some policy development was also undertaken in conjunction with the four land use factors. But, once again, shortage of time dictated that the work was done in isolation from the rest of the planning department, the citizen participation program, or the mayor's advisory committee, and meant that policies were narrow. For example, the possibility of decreasing suburban densities was rejected as being too unrealistic and was never explored; the department was subsequently criticized for reaching this conclusion without first confirming its validity with groups such as the mayor's committee. As another instance, this committee frequently expressed concern with the design of suburban neighborhoods in the city. But the plan team did not include this as a variable in its work on policy alternatives.

(2) Description of Alternatives. The first growth scenario was named "compact city", and included policies for higher densities, mixed use commercial centers at major intersections, decentralization of employment, and the staging of development. To justify this scenario, the planning team relied on long range plans prepared for other cities. It also built on the policy directions emerging from other work in the planning department: special area plans, such as that for the downtown; neighborhood plans; and the special studies undertaken for light rail transit in the north-east and for rail relocation on the south side. Once the "compact" scenario was developed, it was made more specific by developing policies for each land use component. This provided an opportunity for creativity on the part of the planner involved.

In addition to the policy work, the scenario was defined in quantitative terms, by applying the total amounts of projected city growth to traffic zones across the city. This activity was required by transportation planners to link the scenario to a traffic model for the subsequent evaluation phase. It was also thought it would produce targets for the monitoring program. The quantification exercise followed an approach similar to that in land use models, using indicators such as land availability, accessibility, and historical trends. The task was onerous, involving numerous iterations to match changes for traffic zones to those for the total city. In retrospect, the exercise was one of futility; the detailed traffic zone data were essentially meaningless. It was inappropriate for the generality of the alternative, or given the accuracy of the initial information, and certainly of no assistance for monitoring.

Only two other scenarios were generated. The first, a trend scenario, was the quantified version of the likely future if existing policies remained unmodified; the second, or "concentrated" scenario, was a more intense version of the compact option. Both required the writing of policies and the translating of forecasts to traffic zones. The process of generating the three scenarios and defining them quantitatively took approximately five months.

(3) Monitoring Criteria and Implementation. The awareness of the need to implement and monitor the strategy ultimately selected influenced the process of generating alternatives in one key way. It was expected that the forecasts would be used to monitor the urban system's movement, but it was realized that those prepared at the traffic zone level were too error-ridden to be useful. The concept of districts therefore evolved as a way of both implementing the plan, and monitoring development at a smaller than city scale.

A district planning program was to continue after adoption of the 1980 plan (similar to the never-implemented provisions of the 1971 plan), with an objective of preparing a plan for each district to illustrate, and provide for, the ramifications of general plan growth policies. Each of the three strategies was therefore applied to the chosen districts. The delimitation of these districts was in itself no easy task, since their appropriate number and size were related to questions of planning philosophy. Ultimately, if the district planning program is implemented, its success as a means for keeping the general plan current and useful in decision-making will depend upon how much support there is for the boundaries selected, and how workable each district is. Except for the central area, districts are heterogeneous, combinations of older and growing suburban neighborhoods, as well as industrial and commercial areas. The intention is that the weighing of competing interests should be done at the district, rather than city, scale.

Forecasts of the key variables (population, housing, office and retail space, industrial land) were prepared for each district for each growth scenario, using a stepdown method from city-wide forecasts. The district forecasts were to form the basis of the monitoring system, which would track development and population trends and evaluate them against the forecasts of the scenario.

(4) Output. The main published document describing the three growth options was titled "The Edmonton General Plan - A Citizen's Preview" (February 1979). While there was some discussion of policy differences among the three growth options, the major emphasis was upon three maps. In retrospect, these maps were confusing in that the differences among the options could not be detected easily. But, more importantly, they created a static view of the concept of strategy, a description of an end state, rather than a course of actions to actively shape Edmonton's future. The latter view was reflected more in the unpublished internal papers which described the options in

detail.

(5) Conclusions. Several comments can be made regarding the alternatives.

First, in many ways the approach employed was far removed from the traditional planning process. Alternatives were generated, not from goal statements, but on the basis of relatively intuitive analysis of the causes of forecasted problems. Alternatives were prepared sequentially, and covered a relatively narrow range: the two alternatives to the trend scenario were more similar than they were different, both to each other and to the trend. It was also unclear whether the "trend" scenario was in fact the trend, or whether the "compact" scenario might not in reality be the trend. Since no clear statement of existing policy was ever made, and since the quantitative definition of growth options entailed considerable manual calculations, any attempt to revise the forecasted distribution of growth will require considerable effort.

Second, the growth options were superficial, for several reasons: time constraints prevented detailed development of policies; the lack of a model to generate scenarios prevented complexity; and there was too little information on factors such as land availability. Some key variables (such as those related to carrying capacity) were ignored, whereas others (such as site size) were analyzed in too much detail for their value and relevance. In other words, staff time was not used effectively.

Third, while the generation process differed from the traditional models requiring a comprehensive range of alternatives, it suffered from similar attributes. Principal among these was the role of the planning team as expert, remote and separated from the rest of the city administration. Other staff, notably development control personnel, were not brought into the process to advise on the feasibility and implementability of the different options.

Fourth, the lack of involvement of others during the processes of policy development, the conceptualization of district planning, and the development of criteria for monitoring could reduce support for the planning program in the future and be the downfall of its implementation.

Fifth, the monitoring criteria - while noteworthy for the fact that they were developed in the first place - are deficient in a number of the factors identified in Chapter 4. Primarily these can be classified as "policy management data" - additional information clarifying the purposes which the indicator is measuring, the assumptions behind policies, and levels of significance.

Evaluation of Alternative Strategies. (1) Methods. Like the generation of the three alternatives, most of the evaluation was undertaken by the planning team, with little contact with staff in the rest of the organization. The three strategies were evaluated intuitively, according to a set of criteria which had been developed without explicit reference to the goals and objectives developed for the plan. Because of this, there were some discrepancies between goals underlying the evaluation criteria and those underlying the issues identified earlier. For example, one of the evaluation criteria was the price of land; however, the goal of minimizing increases in land prices had not been raised earlier.

The three strategies were circulated to other departments for their evaluation. Most found this to be a difficult task: the similarity of many of the policies among the three strategies meant that there was no real choice; and some departments focussed too much on the detailed traffic zone forecasts rather than upon the policy issues. The net result was a generally non-commital view of the plan strategy: no major objections were voiced, but neither was there overwhelming support. Beneath many of the responses lay the suspicion that other departments viewed the exercise as meaningless, and that the plan, when adopted, would have no real impact.

For two key areas, municipal water and sewer services, and transportation, the planning team attempted to prepare a detailed quantitative impact assessment of the three scenarios. However, the project was doomed to failure, through a combination of insufficient information and communication problems. For example, an attempt was made to determine the costs to the water and drainage system posed by density increases in the already developed parts of the city. But it appeared that such cost estimates could be prepared only if very detailed information were provided - almost to the level of individual projects. It proved to be impossible to identify the "carrying capacity" of the existing network, so no estimate could be made of the additional construction required.

The attempt to evaluate the transportation impacts proved equally frustrating. The evaluative model required that the growth strategy be translated into detailed distributions, even if such data were purely guesswork - which they were to a considerable extent. It was difficult to place much credence in the consequent results.

Another problem lay with many of the assumptions of the transportation model, for example, the use of 1971 data on home/workplace relationships and modal split for forecasts. Not only were these assumptions questionable in the view of planners, but they carried the implication that the model could not be used to assess the impact of decentralization of office employment on transportation congestion.

Both of these evaluation attempts failed, at least in part, due to communication difficulties between groups with completely different perspectives. The planner's perspective was general and did not require significant accuracy from the responses of other departments. The primary concern was with the relative magnitude of relationships. But, it was difficult to convey this requirement to people whose jobs revolved around engineering cost estimates for budgeting purposes, and who therefore were not prepared to commit themselves without knowing the detailed planning forecasts.

This problem of communication between generalist and technical specialist is a major one inhibiting "organizational learning", and is particularly relevant for implementation and monitoring. The challenge lies in asking the right questions, building trust and confidence between the parties involved, and providing mutual help. Such conditions only develop after a lengthy working relationship, which was not the case with the Edmonton plan.

(2) Output. A preliminary evaluation was outlined in the "Citizen's Preview", mentioned earlier. Other than this, no evaluative reports were written. Some file correspondence and "notes to file" mentioned evaluation of specific components, but these were never synthesized into one report. It was only in the "Preamble" to the

plan that an evaluation was written, in the form of a justification of the growth strategy.

(3) Conclusions. The evaluation process was probably the greatest weakness of the plan review, a not uncommon feature of long range planning exercises (Boyce et al, 1970, p. 93). Insufficient time was available to undertake a sound evaluation, and insufficient causal information existed to enable assessment of the real impacts of plan policies. Evaluation criteria were intuitive, and not consciously linked with objectives selected earlier. Since no attempt had been made to obtain political commitment on objectives and evaluation criteria, the results lacked authority.

Similarly, because the plan team did not have an understanding of political priorities, resources were not utilized as effectively as they might have been. For example, city council eventually rejected the downtown housing emphasis of the plan, diluting the policy to "downzone" parts of the central area. If the plan team had confirmed objectives with the council earlier, this situation might have been avoided. Furthermore, less time might have been spent evaluating hypothetical detailed scenarios and more on establishing linkages with implementation and monitoring or on broader policy analysis.

Another factor was the lack of predictive ability to assess the impact of alternatives. This deficiency is endemic to land use and policy analysis, and means that monitoring systems and theory research are critical, the former to feed back information on the effects of policy, the latter to develop improved theories about the interrelationships of policy and market.

Policy Development. The evaluation identified the compact scenario as the preferred growth option, and policy development for the plan strategy then advanced to a more detailed level. A number of policy areas - river valley, environmental protection, historic preservation, urban design - were included in the plan out of concern that it be comprehensive in its coverage, rather than because they were considered crucial to the growth strategy. The most difficult question at this stage (spring 1979) was how specific the plan policies should be. In some sections, such as residential and commercial development, guidelines were extremely specific and provided detailed directions for the land use bylaw. For example, density guidelines were stated linking the form of development to factors such as distance from intersections. In other parts, policies would require interpretation before a development control officer could use them to review an application. Subsequent criticism by the mayor's committee was to note the inconsistency in depth of policy throughout the plan: the group complained that the plan was both too general, and too specific and rigid (report of November 1979).

The policy development activities led to the preparation of "policy reports" in each area; these gave background information and reviewed the key issues, outlined the policies developed, and provided an explanation or rationale for each. The policy reports later became Volume II of the plan, with policies themselves extracted and integrated into Volume I.

Role of the Community in Policy Development. Community comment on the plan was obtained in two ways: first, through a citizen participation process, and second, through the committee created by the mayor to advise him on the plan.

(1) Citizen Participation. The citizen participation process had been the subject of considerable discussion and development since spring 1977. However, the delays caused by the disagreements over the authority of the plan team, and the questioning of planning department competence, influenced the citizen participation program more than any other activity in the plan exercise. By September 1978 almost no work had actually been done, with few contacts established outside the planning department. Given the spring 1979 deadline, the most that could be hoped for was a program emphasizing information exchange: plan preparation was required to take place simultaneously with, and often in advance of, citizen participation. The following features characterized the program.

(a) An outside agency (the Edmonton Social Planning Council) was retained to execute the program. This agency, it was thought, would understand the activities necessary for constructive citizen participation. To improve the program's credibility, it was not managed by the planning department. Instead, a volunteer "citizens' management team" was formed, on which planning department staff sat as representatives.

(b) The majority of funds was spent on information packaging. A public relations firm was retained to advise on contents and format for issue papers and the citizen's preview. These documents were released in February and March 1979 and were made available at libraries, shopping centres, and "information exchanges". These last were meetings intended to give citizens a basic understanding of the general plan and the citizen participation process.

(c) In April and May 1979 a series of two-evening workshops was held across the city. These workshops used a simulation game, based on AIDA, the policy analysis approach stressing the interconnectedness of decision areas. On the first evening, citizens were challenged to think about how Edmonton could accommodate growth without detrimental effect upon the values they considered important. The scenarios developed through this simulation game were then discussed on the second evening to clarify rationale and values. The workshops used the three planning department options outlined in the citizen's preview for information, but it was made explicitly clear that discussion need not be constrained by them.

(d) The social planning council then integrated all the material which it had collected during the workshops and presented the planning department with a report on the program (June 1979). The report contained two main sections: a summary of values expressed during the meetings, and a summary of the alternative scenarios which had been developed. This report was the first and only opportunity for the planning department to assimilate the concerns of citizens and adjust the plan.

(e) A "report back" by the planning department (September 1979), released at the same time as the plan, commented on the citizen views and explained how the department would deal with them. The report included whether or not the plan dealt with a particular issue, whether the plan was to be adjusted or not, and the degree of coincidence between citizen recommendations and plan policies. In general, the comments received by the city were consistent with the direction of the plan. The "report back" claims that "the main thrust of the plan is basically in tune with the values of the community", and it appears that no policies were revised as a result of the citizen input.

(f) A series of "evaluation workshops" was held after the plan's release in September 1979, to explain the plan, help citizens evaluate it, and assist them in preparing submissions to city council at the public hearing which would be held on the bylaw.

(g) The public hearings themselves were the final element in the process, held from December 1979 to January 1980.

Given the extremely short time available, much activity was generated by the social planning council management team: press coverage and television programs; an "I Love Edmonton" day; and contact with a number of special interest groups such as the Chamber of Commerce, community groups, and the Urban Development Institute. Some exchange of information and views occurred, and the social planning council evaluative report noted that the program achieved most of its objectives relating to communication, dissemination of information, and creating awareness that options for the future exist. The program was perhaps most successful as a community development process - the involvement of a large number of citizen volunteers in its management and execution; the generation of ideas such as the "I Love Edmonton" day in which thousands of school children talked about Edmonton's future; and the use of the simulation game by the school systems.

The weaknesses in the program stemmed from the time problem: the simulation game in the workshops was not as useful as it could have been had citizens had more information about existing policies, the feasibility of alternative policies, and cause-effect relationships.

Second, despite the press coverage, only 400 citizens attended the meetings in all. A program with more time could have worked with existing groups, using the networks already in existence to reach more people. This latter way of approaching citizens would also have resulted in deeper insights, and momentum could have carried on to the plan monitoring program. As it was, the participation program lost its spirit; aside from the social planning council itself which remained interested, other community groups - which could have been useful monitors of the plan - lost contact with the process. The final - and perhaps most important - weakness of the program was its minimal impact upon the plan. The fact that no significant differences emerged between the views of planners and those of citizens suggests that issues and values were discussed at too high a level of generality to bring forth the plurality of interests which undoubtedly exists in Edmonton.

(2) The Mayor's Advisory Committee. While the social planning council's evaluation of its involvement in the general plan process was positive, that by the mayor's committee was not. In its final report (November 1979), the committee made clear that it was disappointed both with the role it had played with respect to plan preparation and with the plan itself. During the planning process there were continuing disagreements between the committee and the planning department as to an appropriate direction for the general plan, and a discord which developed into a lack of trust was never erased.

Those of us in the planning department who worked with the committee found it a frustrating experience. Clearly, the members were dissatisfied with many of the policies and procedures of the department, and believed the general plan to be perpetuating them. But it was difficult to understand from them the precise nature of their concerns. The centralization of planning seemed uppermost - but even this was never well-defined: it was unclear whether decentralization referred to municipal government, or to physical planning policies, or to the autonomy of municipalities on Edmonton's boundary. Two quotes demonstrate the difficulties faced by planners in interpreting the comments of the committee: these are in relation to the group's views on the social element of the plan.

> Assessment of traditional planning practices shows the Plan to have a lack of understanding of what planning could be, how people live, how land is developed and how utilitieas are put in place. The plan talks of efficient government and annexation as though there was only one alternative. When it comes to a HUMAN DEVELOPMENT STRATEGY, the issue is avoided in favor of further study (Strategy 16, page 19 - 21). One wonders where people fit into this Plan.
>
> (Point No. 2, Page 7,
> November 1979 report)

But then, in commenting on the policies respecting "human development and social services", the committee says:

> In recognizing the social and human impact of plans and service delivery, the General Plan has attempted to piecemeal a program guideline within the document. If we are truly to effect district planning, then let the formation of human development and social services objectives and guidelines evolve from the district planning structure and concept as opposed to a cursory identification and solution section within the General Plan.
>
> (Point No. 1, Page 27,
> November 1979 report)

Similar kinds of contradictions can be found in many of the advisory reports from the committee. Ultimately, once again, the problem was a communication one. Here was a ready-made opportunity for "mutual learning" to take place, and yet a common ground could not be found.

The conclusion must be, therefore, that the committee had little direct impact on the plan contents or format. Nevertheless, a number of the individual members had views similar to those of the plan team, for example, with respect to the importance of monitoring.

Implementation and Monitoring Procedures

The foregoing sections have reviewed in detail the various activities of the plan-making process relating to policy development. The other major component to examine is that of implementation and monitoring. The analytic criteria are vague, defined only in such terms as whether the process of preparing the plan built trust and cooperation; the use of action research; the establishment of information pools and flows; and, the consideration given to organizational structures for implementation and monitoring.

Implementation. Activities to ensure plan implementation were directed towards two areas: first, the nature and contents of plan statements to direct programs such as land use control; and, second, developing linkages between plan policies and means of implementation.

(1) Land use control. Four methods were identified for plan implementation: district plans (described below separately); area redevelopment plans; area structure plans; and the land use bylaw. Preparations were already underway for a new land use bylaw, for adopting plans for older neighborhoods as area redevelopment plans, and for adopting area structure plans for new neighborhoods. General plan team members hoped that the plan could outline some specific directions for these three instruments, and that the statements would be prepared by other sections, who had more detailed understanding of

them. A number of meetings were held with staff from these units; however, most of the policy statements were prepared by general plan staff in the end. The general plan document just did not have the support required to elicit major commitments of time and effort on the part of others.

The plan statements pertaining to area redevelopment and structure plans outlined the circumstances under which each instrument should be used, and the desirable contents of the plans. The area redevelopment plan is required to indicate "the location, timing and form of development, consistent with the policies of the General Municipal Plan and any District Plan regarding transportation objectives, urban environmental design objectives, and park space allocation objectives" (policy 17.B.4). A similar statement is made for area structure plans (policy 17.C.5).

The plan makes explicit that the land use bylaw is also perceived to be an instrument of implementation, and under the authority of the plan (a different interpretation from the planning act). The land use bylaw program is given clear directions to incorporate relevant provisions of the plan, such as the residential and commercial density guidelines mentioned earlier.

(2) District planning. The concept of district planning, and its importance to the plan, changed during the preparation period. Initially, district planning was perceived as a way of ensuring that individual neighborhood plans were not prepared in isolation from each other, or without reference to the role played by the neighborhood in the city as a whole. But, although this was not forgotten, district planning gradually came to encompass other functions, chiefly

its potential role in implementing the general plan and in formalizing citizen participation in the planning process. The preparation of district plans, it was argued, would create, first, a mechanism to apply long range strategic policies in development decision-making; and, second, an opportunity for citizen involvement in development decisions at a level more meaningful than the city-wide general plan, but not so localized that interest groups could become "parochial".

As this concept developed, it became apparent that it was the most "visible" of the general plan's proposals, and of greatest political interest. Consequently, a conscious decision was made to use the district planning proposal to promote the plan. In retrospect, the wisdom of the move can be questioned. While the visibility of the plan was increased, and there was considerable debate on the merits of district planning and the size and number of districts, the growth management aspects and development strategy of the plan were not debated.

The development of the district planning program occurred in relative isolation from other branches in the department, especially those affected most greatly, the neighborhood and area planning units. Some early papers had been authored, but these were never discussed with other branches in the department, due, once again, to the changes which took place in the plan project over the summer of 1978. The work which was used in the plan was not formally circulated to other branches in the department, nor discussed with them, until the plan itself was circulated in the spring of 1979.

A final point respecting the process in which the ideas for district planning were developed relates to one mostly unintended consequence. Since it was perceived as a link between the general plan and neighborhood plans, a number of neighborhood-level controversies were set aside for resolution in the district planning process, rather than in the general plan. Not only was this anticlimactic for those who had hoped the general plan would "solve" all problems, but it also means that the general plan will result in a number of follow-up studies, as well as the district planning program itself. All in all, district planning has meant the creation of thirty-six new positions (as of the summer of 1981), although the net increase to the department is not this high, since some positions in neighborhood and area planning are being dissolved.

(3) Program Directions. Because of the unwillingness of others in the city administration to become involved in the project, activities such as defining feasibility of strategies - which should have been done in concert with others - remained a team exercise. And, therefore, when the time came to develop programs to implement the strategy, the project planners suffered from inadequate knowledge and understanding. While the fact that the plan contained program linkages is noteworthy in itself, nevertheless the descriptions of programs remained necessarily general.

The plan preparation exercise was not carried out in total isolation of course. At various times during the process, drafts had been circulated to all other departments, as was the normal procedure. The comments received tended to be neutral, and focussed more on random specific remarks than on the overall substance and direction of the plan. This can be attributed in part to its magnitude and the difficulty of quick assimilation, but also to the lack of prior involvement of the other departments.

The contacts with the water and sanitation department, and the transportation department, have been mentioned in conjunction with evaluation. These were also key to implementation: while the general plan (because of the limited amount of suburban land remaining within city limits) did not focus on suburban expansion and staging of utility extensions, it did deal considerably with redevelopment in older areas of the city. This redevelopment might frequently require upgrading of sewer and water mains; therefore, the capital budget must accomplish this. Similarly, the transportation plan must reflect a strategy consistent with the land use policies of the general plan. In an early draft, the general plan outlined some priorities for transit and roadways construction, but these were deleted by the transportation planning branch as being too specific. In the end, neither the water and sewer nor the transportation capital budgets was influenced by the plan. If it is to exercise any control now, it must do so through the annual budget preparation and review process.

The plan team's early hope that the corporate planning office could help in generating support for plan implementation never really materialized. Certainly a few meetings were held, to discuss the general nature of the linkage between the five-year "local policy plan" produced annually by the office and the general municipal plan. However, the substance of the general plan's proposed policies was rarely, if ever, discussed, nor capital programs to implement them. The most success in coordination was achieved with respect to population forecasts (which were prepared individually by different departments), since the plan team was able to utilize the authority of the corporate planning office to transmit information of its own to other departments.

Monitoring. Up to September 1978 two attempts were made to develop programs which would be useful for plan monitoring: neither was successful. The first was the establishment of a data file on building permits issued in Edmonton over the previous ten years, with the intention that this would then be kept up to date to provide useful monitoring information. Unfortunately, the project proved more difficult than anticipated: building permits were inconsistent, and often only partial information was available. These problems meant that the accuracy of the file came to be questioned, and it subsequently fell into disuse. One of the underlying issues was the degree of accuracy required in planning information: for some decisions, partial information may be better than no information at all.

The second project was the exploration of the feasibility and value of establishing a land use model. This, it was thought, would be useful for testing the impacts of different land use policy options, would improve the accuracy of forecasts of land absorption and development patterns, and could make transportation modelling more effective. The project resulted in a report (June 1977) recommending the adoption of the system used in Calgary, which it was concluded could be effectively developed in Edmonton with minimal resource input. However, because of the various delays suffered by the general plan from September 1977 onwards, the proposal was never implemented. Furthermore, the potential value of such a model came to be questioned; the view was that it should be reexamined as part of the monitoring program.

After the September 1978 report to city council, most work to establish monitoring processes was postponed until after the plan's approval. It is only now (summer 1981) that developmental work is being undertaken on the nature and scope of monitoring; this is reviewed in the following chapter.

Plan Finalization and Approval

The Product. The general plan submitted to city council comprised two volumes, totalling approximately 400 pages. The plan team attempted to minimize the difficulty of absorbing this amount of material by structuring the plan in succeeding levels of specificity. Volume I contained five parts, arranged as follows:

I. Preamble. A summary of the key elements of the plan in an eighteen point growth strategy, and the justification for each of these elements (24 pages).

II. The growth strategy. The main objectives and policies of the plan, in four sections, dealing with the role of the city in the Edmonton region; the key components of the development strategy; district planning; and citizen participation. It is in this part that the skeleton of the plan was laid out, including the growth strategy map (a general map produced at a large scale) (35 pages).

III. Growth components. Detailed objectives and policies for specific land use types and development themes. Topics covered include: residential; commercial; industrial; transportation; utilities; parks; river valley; natural environment; human development and social services; the region and annexation; urban design; and historic preservation. This part contains the "meat" of the plan' adding to the skeleton laid out in the previous part (approximately 100 pages).

IV. Implementation. This part contains the statements linking the general plan to the land use control mechanisms, summarizes the programs necessary for its implementation, and outlines the provisions for monitoring. As in most plans, it is short (25 pages).

V. Definitions. This part is self-explanatory: as many technical terms as possible are defined (6 pages).

Volume II contains the policy reports, fifteen altogether. Each gives background explanation of the issues leading to the policies developed, further detail, and a statement of rationale. This is the most detailed section of the plan, and was intended as a resource document.

The format of the plan attempted to overcome some of the problems which had been experienced with the 1971 plan. First, the hierarchical structure was intended to improve readability: it was hoped that a person wishing only an overview could read either Part I, or Parts I and II, and obtain a quick understanding of the plan's contents. A key word system in the page margins was also for this purpose. Second, the plan was structured so that objectives and policies were connected. Furthermore, as mentioned earlier, each policy was linked to an implementing program, which was identified in the plan. These were then summarized in a table in the implementation chapter. These changes were all intended to help plan implementation occur. Finally, the plan contained a cross-referencing system so that amendments to interrelated policies could be made easily.

Plan Approval. A draft plan was completed by May 1979, but the planning department received approval to delay its release until fall. Citizen participation would be more effective at this time, and the plan could be "polished". The stages in plan approval were therefore as follows:

September 11, 1979. The draft plan was submitted to city council for information and released for public discussion. As part of the citizen participation program, the social planning council then sponsored a series of meetings to assist people in preparing briefs for the hearings on the plan.

December 5, 1979. The plan was given first reading as Bylaw 5773 by city council and referred to the public affairs committee for hearings.

January and February 1980. The public hearings were conducted by the committee. As expected, the district planning concept received the most comment from citizens. Concern was expressed that it might supplant neighborhood plannning and reduce the responsiveness of the municipal government. In addition, the development community criticized the provisions of the plan with respect to housing in the downtown.

March 10, 1980. First reading was struck by city council. This was not due to any concern with the plan itself, but to a question of council procedure. At issue was the fact that not all the aldermen had been present during all of the hearings, and therefore were not eligible to vote. A similar fate awaited the land use bylaw, which was before council at the same time.

May 26, 1980. First reading of the new general municipal plan bylaw (Bylaw 6000). The planning department had used the opportunity to make some changes in the plan, mostly to clarify minor inconsistencies. It could not deal with the substance of the criticisms at the earlier hearing, since legally it had not occurred. The bylaw was once again referred to the public affairs committee.

June 1980. The public hearing was re-conducted.

July 4, 1980. City council gave second and third readings to Bylaw 6000. The only major change to the plan was in response to the pressures brought to bear on the downtown section. The final plan was much less forceful in its statements on the need for downtown housing, and did not give directions to the land use bylaw. District planning was approved, with the addition of the concept of sub-districts, to placate those who felt that six districts were too few and too large.

Summary

This section provides a summary overview of the allocation of resources among the various planning activities, in terms of staff, budget and time.

Staff. Table 1 shows that, from the early proposal stage in June 1975 to September 1979 and the release of the draft plan, approximately 31 man-years (375 man-months) were devoted to plan preparation. Up until September 1977 an estimated two to three man-years were spent; then, from September 1977 to September 1979, a staff varying between thirteen and fifteen worked on the plan.

The two largest tasks, absorbing nearly half of the staff resources, were the technical ones: the analysis of trends and the development of forecasts absorbed over one-quarter of the team effort; the technical work for the preparation of the growth strategy another sixth. By contrast, the development of policies absorbed only a little over ten percent.

Table 1

Allocation of Staff Time by Activity in the Edmonton General Plan Review, to September 1979

Activity	Man-Months	Percent of Total
Managerial	31.0	8.3
Coordination of technical work	31.0	8.3
Technical analysis and forecasts	104.0	27.7
Growth strategy preparation and evaluation	61.0	16.3
Policy preparation	42.0	11.2
Monitoring processes (prior to September 1978)	24.0	6.4
Citizen participation	24.0	6.4
Clerical	36.0	9.6
Drafting	22.0	5.9
TOTAL	375.0	100.0

Notes:

1. The allocation is based on generalized statements of position responsibilities, and the dates when these positions were filled, up to September 1979.
2. Only staff directly employed on the general municipal plan project are included in this table.
3. There is insufficient information to estimate amount of staff time allocated to the development of implementation programs.
4. Due to rounding, percentages do not add to 100.0.

Budget. A slightly different picture emerges from Table 2, which portrays expenditures and therefore reflects the involvement of consultants in addition to staff. The first significant conclusion relates to the proportion of funds spent on citizen participation. In direct costs alone, citizen participation absorbed over sixteen percent of the budget. In addition, most of the printing costs (over seventeen percent) were to produce public literature, and an estimated ten percent of salary costs (or five percent of the total) was for staff involved in the program. Altogether, therefore, citizen participation absorbed nearly forty percent of the general plan budget.

The other pertinent point from Table 2 relates to the total cost of the project: $1.6 million, compared with the 1976 forecast of $765,000. At that time, it had been expected that citizen participation costs would be about fifteen percent of the program costs. Thus, besides inflation, the expanded participation program is one of the main explanations for the greater than expected costs.

Time. Figure 4 summarizes the activities of the plan program, and illustrates the disparity between time required to define program objectives and that required to prepare and evaluate the growth options and write the draft plan. Similarly, plan approval required almost as much time as the preparatory work. The majority of the document, therefore, was created in a period of intense activity between September 1978 and September 1979.

Conclusions. A number of comments can be made about the scope and nature of the analytic approach used in the general plan program.

Table 2

Breakdown of Expenditures, General Plan Review
January 1, 1977 to December 31, 1979

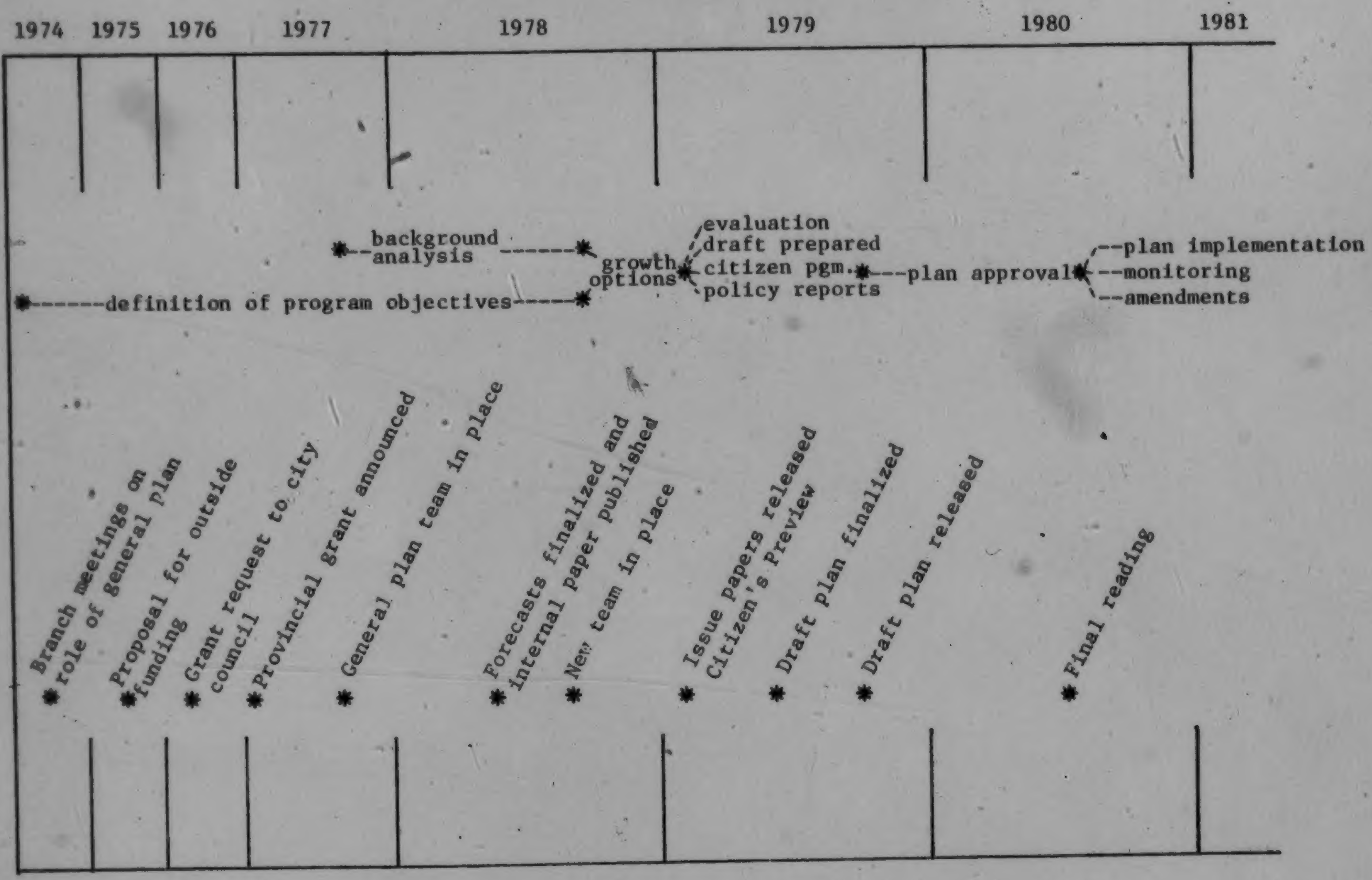
Item	1977	1978	1979	Total	Percent of Total
Salaries[1]	$ 122,333	$ 227,094	$ 283,979	$ 633,406	54.6
Consultants[2]	--	37,904	53,291	91,195	7.9
Citizen Participation[3]	5,899	10,415	79,748	96,062	8.3
Printing[4]	1,300	14,177	188,193	203,670	17.5
Data Processing Charges	1,179	17,466	9,541	28,186	2.4
Overhead (Rent, furniture)	18,998	46,079	43,106	108,183	9.3
TOTAL	149,709	353,135	657,858	1,160,702	100.0

Notes:

1. Includes salaries, overtime, temporary labor, and employee benefits.
2. Almost all consultants fees were in relation to the citizen participation program: the writing of issue papers, the public relations involved in advertising and promotion of the program, and graphics consultants.
3. The figures for 1977 and 1978 are advertising costs, mostly stemming from advertising amendments to the general plan bylaw. The 1979 figure includes a small amount for advertising, but the majority ($69,505) are costs noted in the accounts as "citizen participation". Much of this cost was also consultant fees.
4. Most printing expenses were incurred in preparing material for distribution to citizens.

Figure 4

Key Events in the General Plan Review Program, 1974 - 1981



(1) Terms of Reference.

(a) Inconsistency between the original proposal and the approach actually followed. As noted earlier in this chapter, there were several changes during the evolution of the program which meant that not all of the original elements of the proposal were carried through.

(b) Awareness of the need for a new approach is not sufficient. The early sections of the chapter reviewed the various proposals for the general plan program, and illustrated that team members were cognizant of the need for a new approach to the plan, emphasizing the development of implementation and monitoring processes rather than concentrating on a static land use plan. But despite this awareness, the actual plan program placed relatively little attention on developing such procedures. This was due to time constraints and the kinds of activities pursued.

(c) A process with a strictly land use focus. The plan program concentrated upon the land use component of the growth strategy; because of communication difficulties with those in transportation planning, there was little reference to this component. Furthermore, the early objective to explore the link between social problems and land use policy was discarded in 1978 during the narrowing of the focus.

(d) Conflicting expectations as to terms of reference. The plan team was under considerable pressure to be innovative and imaginative, especially after the public criticism of planning department competence. But, at the same time, there was pressure to be practical and realistic: imaginative ideas were considered outlandish, or at least naive. The plan had to be feasible and implementable. Team members were therefore placed in a difficult position, not knowing how stubborn to be. In retrospect, I believe we could have fought more vigorously for our convictions: to obtain needed information; to convince others of our ideas; and to maintain the integrity of policies. If we had, the plan perhaps would have been more imaginative.

(2) Analysis and Forecasts

(a) Difficulty of describing the existing situation. This problem plagued the plan program from beginning to end and meant that accuracy was reduced. For instance, in 1977 when the office decentralization policy was first proposed, planners did not know how much dispersal was already occurring under present policies. By 1979 they still did not know. This point leads, once again, to the importance of a monitoring system, to understand what policies are currently in place, to learn about policy shifts, and to monitor development trends.

(b) Non-essential background work. A number of projects absorbed staff time but were never used in developing the final plan document. Among these can be counted some of the early proposals for citizen participation; various sets of detailed terms of reference for studies; the proposal for the land use model; some fairly academic research, such as an economic base study; and, the detailed quantitative analysis of the growth options.

(c) Inefficiency in the use of resources. The point made in (b) implies an inefficient allocation of staff and time. Some activities - such as the growth options work - could have been reduced in scale to allow for more effort in other areas: policy analysis; the development of monitoring criteria; or the broadening of the growth options.

(d) Reliance on technical work. Partly because of time, there was little use made of the comments from citizens or the mayor's committee in identifying issues or generating and evaluating alternatives. The citizen participation program was more successful as a community development exercise than in providing useful comments that the planners could incorporate: the material it yielded was so general that it was hard not to interpret it as coinciding with the planners' views. The experience with the mayor's committee illustrated the difficulties hindering communication between those "inside" an organization and those "outside".

(e) Linearity of process. The plan program followed the traditional linear one, with little experimentation using lateral techniques like action research to facilitate organizational learning and generate commitment to the general plan.

(3) The Growth Strategy Preparation and Evaluation

(a) A sequential, narrow range of alternatives. Alternatives for accommodating growth were generated in a "satisficing" manner that was a dilution of the ideal comprehensive-rational model and relied to a considerable extent upon intuition. The three options all flowed from the same set of goals (such as orderliness, economy, and convenience) and were based on the same approach to the city's development: varying degrees of compactness, with emphasis on a public transit transportation system. Alternatives such as a freeway-oriented, low suburban density city were rejected early on as being undesirable and not feasible. While this decision meant that more attention could be paid to options that were definitely feasible, it was subsequently criticized. For example, the mayor's committee advocated that the team should have examined policies of cities such as Houston, Texas in order to create a freer environment for the development industry.

(b) Similarity between the general plan and other city plans. The plan team borrowed freely from policy directions being considered in other cities; it is not surprising therefore that the plan's strategy is similar to that being promoted in many Canadian municipalities: increasing compactness of development achieved through greater residential densities; decentralization of employment and the creation of town centers; an orientation to public transit; and objectives to "humanize" the urban environment.

(c) Selection of a strategy tied to plan approval. The timing of the process meant that the desirability of the strategy was not debated until the plan itself was brought forward. This meant that work was needlessly undertaken in some policy areas - such as housing downtown, since this component of the strategy was ultimately rejected.

(d) Comprehensiveness. The plan was originally to be a strategic plan only, aimed at focussing on key problems of Edmonton and developing a set of guidelines and actions to cope with these problems. But concern with the need for comprehensiveness resulted in additional policies being incorporated, and the final product was therefore not as streamlined as had earlier been intended.

(e) An essentially synthetic process. The general plan synthesized policy shifts which had been gradually occurring since 1971, thus providing them with recognition and authority. The argument can be made that the trend scenario was realistic only if one took the position that the policies of the 1971 plan were what was being practised. In reality, many of its policies - such as those concerned with urban renewal - were being replaced. The implication is that, in much planning decision-making and practice, the compact city concept was already occurring and thus was not a radical concept after all. Some of the policies borrowed by the general plan included the approach to suburban densities, developed by those responsible for area structure plans; the parks and recreation policies, culled from the master plan of the parks department; the river valley policies, a repeat of the contents of the draft river valley bylaw; the annexation policies, developed by the annexation team; and transportation policies, deliberately general so as not to close off any options being examined by the transportation planning process.

(f) Some creative policy work. In a few areas, the general plan process added some creative insights: district planning; guidelines for commercial development in all of its various forms; and, policies for residential redevelopment and infill within older neighborhoods. The latter two areas were subsequently criticized, though, in the public hearings as containing guidelines too detailed for a general plan, and some of the policies have since been made more flexible.

(4) Communication Links

(a) Relative isolation of the team. The plan team was separated, both organizationally and spatially, from the planning department for the two year period September 1977 to September 1979. This isolation, coupled with the pressures of time, made it difficult to establish links with other planning processes that were underway, such as transportation planning, the downtown plan project, the annexation study, and, most importantly, those involved in development control (for implementation) and information processing (for monitoring).

(b) Lost opportunities. Due to the delays in the process, the general plan program lost some opportunities to influence major commitments which were being made while the review was underway. For example, the annexation study and its proposals for the use of land outside the city boundaries; a review of suburban design guidelines; decisions on major municipal facilities (such as the downtown police headquarters, the location of city yard facilities, and the concept of decentralization of human service delivery systems); and decisions on major transportation facilities such as the south extension of the light rail transit system and various arterial road decisions.

(5) Conclusion

Awareness of the need to lay the foundations of implementation and monitoring influenced the plan preparation process, although not to nearly the extent which had been originally anticipated in 1976 and 1977. An assessment of whether the plan process was sufficient to create a responsive planning system can only be made on the basis of the plan's influence on decision-making, and it is premature for this. However, some guidance can be provided by the nature of current activities in plan implementation and monitoring. This is the topic of the following chapter.

Chapter 7

THE PLANNING SYSTEM IN EDMONTON AND THE ROLE OF THE GENERAL MUNICIPAL PLAN

It is appropriate at this point to review the development of the argument in this thesis. Chapters 2, 3 and 4 established the need for a planning system to be centered upon implementing mechanisms, and the need for monitoring systems to ensure responsiveness. The argument continued that these conditions will prevail only if their foundations are laid during the process of preparing a plan. The first criterion for successful plan implementation and monitoring, therefore, is the need for a process different from the traditional linear comprehensive one, which is document-oriented and places the planner as expert. It also follows as a second criterion that plan policies must clearly outline the conditions and terms under which they will be monitored; and they must set out sufficient guidelines for subsequent decisions on development. In all likelihood, they will not provide easy answers, but the policies should outline how conflicting interests are to be taken into account and the guidelines that are to be used to weigh them.

Neither of these general criteria is easily achieved. This has been demonstrated by the analysis in Chapter 6 of the process for preparing Edmonton's general municipal plan, and the point will emerge again in this chapter, where the attention shifts to the second criterion: the output of plan preparation - the content of policies and the procedures established for monitoring and implementation. First, however, a brief description of Edmonton's planning system is required, though it must be understood that it is constantly adapting to the press of events. In its reference to organization size and structure, responsibilities and functions of various units, the distribution of authority among the organization, and the activities of the planning system, the following description is as accurate as possible at the time of research and writing (spring and summer 1981).

THE EDMONTON PLANNING SYSTEM

Structure of the Civic Administration

The municipal organization is characterized by a number of features.

Control by a Commission Board. The civic administration's actions are the responsibility of a controlling board of commissioners, senior officials appointed by city council. Theoretically, the elected representatives set policy and the staff operate within these bounds; in practice, the division is less clear.

Structural Principles. The board of commissioners in Edmonton is chaired by the mayor (thus providing a link between staff and council) and has four other commissioners, each of whom is responsible for different functional areas. The broad divisions are:

Chief Commissioner: corporate management functions, such as corporate policy planning; law; public relations; personnel; support services for council and commission board.

Commissioner of Economic Affairs: departments such as finance, assessment and taxation, budget, management systems, computer systems.

Commissioner of Public Affairs: departments such as land use planning, social services, parks and recreation, library, police, fire.

Commissioner of Utilities and Engineering: departments such as water and sanitation, transportation systems design, engineering, power, telephones, transit.

Hierarchical Nature. The Edmonton organization is relatively hierarchical. All contact between staff and the elected representatives takes place by way of the commission board and, to a lesser extent, the general managers of individual departments. Although the organization is not as centralized as the one Faludi (1973a, p. 246) criticizes, where all communication is filtered through one person, it certainly does not approach the model of loosely structured teams able to communicate freely with aldermen.

The organization is characterized by strong central control, and in this respect is typically bureaucratic. Information released to council or to the public is reviewed for consistency with official policy: great stress is placed upon the importance of a "united front". Information flows up the hierarchy, gradually being generalized and thus filtered, rather than laterally across organization lines. Limited authority is decentralized; for example, correspondence must usually be signed by unit heads rather than individual professionals.

The upward channelling of information and decisions places tremendous pressures on the organization's senior management (the commissioners and general managers) and diverts their attention from management and planning issues to the integration of information and conflict resolution. The need for some changes in the structure has been recognized in the past few years (for example, an unpublished November 1977 report, and the report of the mayor's inquiry into the planning department - Lash, 1978). Suggestions have included the establishment of "sub-commissioners" between general manager and commissioner; the appointment of assistant or deputy general managers; the development of a matrix structure of organization with increased corporate control and coordination groups; and increased use of special, ad hoc task forces. The two last suggestions are consistent with those identified earlier as strategies available to organizations overwhelmed with information.

Implications of Structural Principles. The organization is structured on "product" lines, and thus - unavoidably - has separated some functions which are related: for example, the department responsible for transportation planning reports to a separate commissioner from land use planning. This means that conflicts between the two perspectives are rarely resolved during planning processes and are instead sent upward in the hierarchy to the commission board meetings. Land planning functions are also carried out in other departments - parks and recreation, for example, and the department responsible for city-owned housing and land development. In the past, conflicts between planning and these two departments have not been resolved below the level of the commission board. Similarly, while there is a proliferation of policy and research units among the various product departments (nearly one in every department), there is little communication among these units and, consequently, relatively little coordination. The problem of conflicting population forecasts can be cited again.

Corporate Coordination Functions. The lack of coordination of corporate management and policy making functions has led to the establishment of the corporate policy planning office, introduced briefly in Chapter 6. Corporate planning is modelled after the experience of British cities and is intended to provide a "center of responsibility" for policy planning, a function which is currently neglected because of the traditional management patterns and departmental operating styles ("The City of Edmonton Corporate Policy Planning Process", 1977, p. 7). Corporate planning is therefore a centralizing, coordinating function. The fact that the need for such a function can coexist at the same time as the need for decentralization of authority is indicative of the complexity and contradictory nature of organizational problems.

In Edmonton, corporate planning is accomplished primarily through the annual preparation of a five year forecast and budget (the local policy plan). This amounts essentially to a monitoring exercise, covering a review of development trends in the city in the previous year, with forecasts for the future; a summary of external factors - governmental, economic, or social - which might influence the city's planning; a brief outline of major policy issues to be faced by the city government in the near future (such issues are usually those raised by the administration, not citizens or other outside agencies); and the five-year budget forecast.

The corporate planning office performs a matrix management function; it has the authority of the commission board behind it and its requests for information from line departments are consequently treated with respect. Directors of policy and research units in these departments work with the corporate planning office on any matters of corporate policy.

Growth Rate. The Edmonton civic administration has been experiencing tremendously rapid growth - approximately five percent annually in the mid to late 1970's. The problems of upward information overload and insufficient central coordination are exacerbated by this rapid growth.

Structure of the Planning Department

The department organization is characterized by the following features.

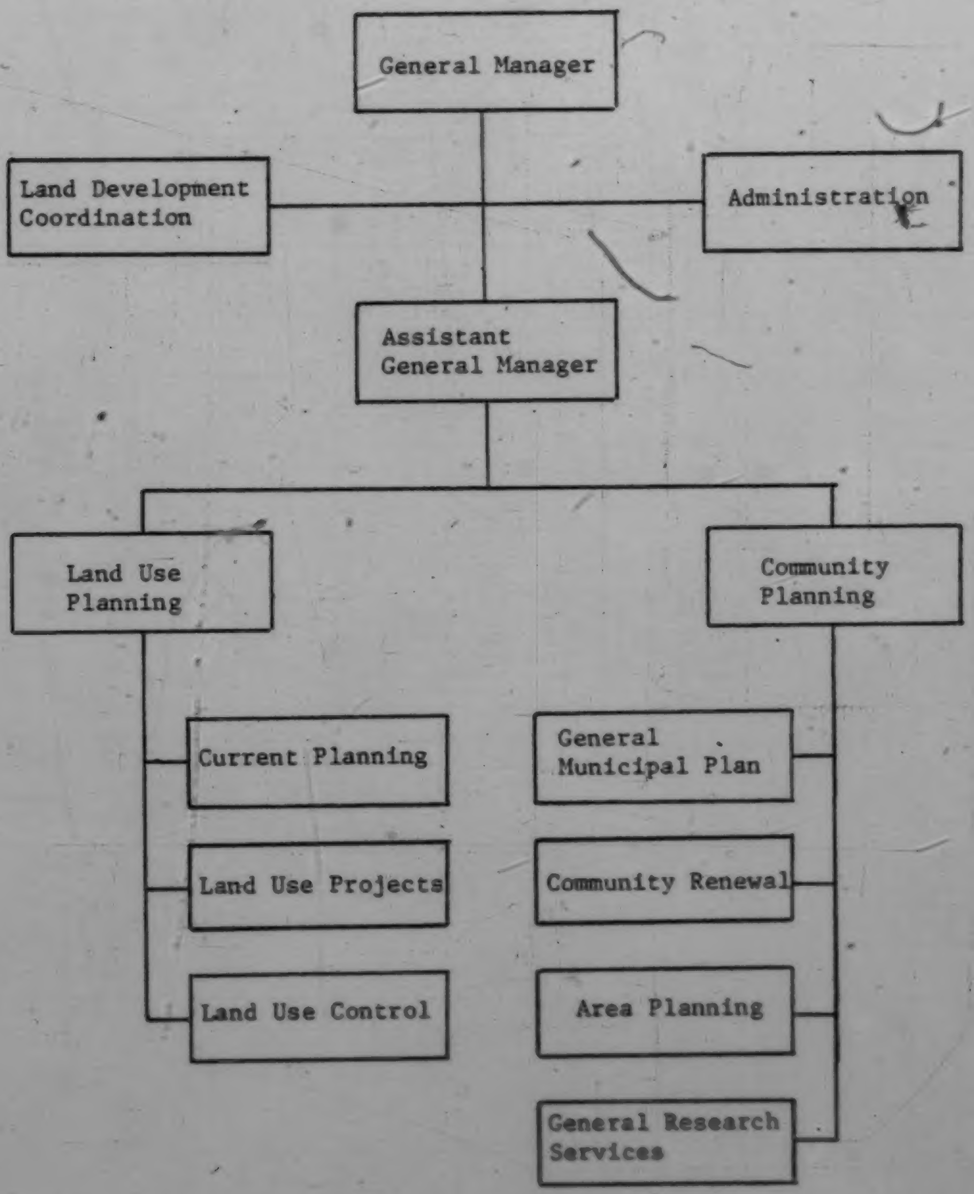
Control by a General Manager. The senior officer in the department is responsible for both its management and representing its interests to commission board, aldermen and other agencies. The strains of this dual function have necessitated the creation of a deputy general manager position to bolster the department's managerial capabilities, and the appointment of planners on a rotating basis to an administrative assistant position, termed "liaison officer".

Structural Principles. The department is split into two major line branches - land use planning and community planning (Figure 5). The former is responsible for development control (subdivision review and land use bylaw management); the latter is responsible for plan-making and policy formulation. However, the lines of division are not always clearcut. The land use planning branch also prepares and reviews area and neighborhood structure plans; these guide the subdivision process, but are policy documents in their own right. Both branches also have design responsibilities.

It is noteworthy that the responsibility for reviewing

Figure 5

City of Edmonton Planning Department
Organization Structure



development applications and issuing permits was recently moved out of the planning department and combined with the building permit function, in the bylaw enforcement department. The planning department is still involved in the review of major applications, but the new arrangement has some disadvantages. It is confusing for the development industry, and has resulted in less communication between policy and control units. This means that policy is more likely to be ineffective, and that monitoring of trends in development will be more difficult.

In addition to the two main branches, two other small branches exist. The land development coordination branch was formerly a separate department, and joined the planning department in 1976. Its function is to negotiate development and servicing agreements with the development industry on behalf of the city, and to coordinate the flow of information between the private sector and municipal government. To some extent it acts as an advocate for the private sector, and the argument has been made that it should therefore not be within the planning department. The other branch - administration - is responsible for departmental support services, including a library and public information unit.

In the past the department has been responsible for various other functions, which have now been located elsewhere in the organization. For example, the preparation of plans for city-owned land is now done elsewhere, as is the development of city housing programs. Transportation planning was incorporated into the department for a short time between 1977 and 1979. In all of these cases, the argument ran that there was too much potential for conflict between these interests and those of land use planning to be all under one manager.

Monitoring. One activity given little prominence in the department organization is the development and maintenance of information, especially related to monitoring. The function is relegated to one unit (general research services) of a branch (community planning), rather than - as was concluded in Chapter 4 as desirable - having the status of a branch itself. On the other hand, some marked improvements have been made in the area of public information in the last few years. The need for a unit focussing on this service has received senior management support, and resources have been devoted to developing the department library and public information service.

Centralized Nature. Partly because of a substantial increase in size since the early 1970's, the department has become increasingly hierarchical. For example, in 1974 in the research and long range planning branch there was only one intervening level (the director) between a planner and the department senior manager, whereas in 1981 there are four or five levels.

Coordination. The primary vehicles for coordination are the regular department managers' meetings, and the deputy general manager position itself. There is a general feeling within the department, however, that communication is inadequate; there is little contact among branches, and in the past informal approaches to projects have been used rarely.

Need for Organizational Change. The mayor's consultant (Lash, 1978) viewed the department's coordination and communication problems as symptomatic of the need for organizational change, and recommended that, rather than creating coordinating committees, the focus should be on shifting to a more flexible structure, utilizing forms such as ad hoc project teams to develop cross-communication links. The report identified the need to develop "collective professional responsibility" for the products and recommendations of the department, by vetting major reports through groups of professionals, rather than by relying upon an individual planner and his superior.

Specific Responsibilities. The plan-making branch (community planning) is divided into four sections:

General municipal plan: prepares the plan and amends it as required; coordinates the plan implementation program; undertakes a plan monitoring program.

Community renewal: prepares area redevelopment plans for older neighborhoods, with an emphasis on rehabilitation; responsible for implementation of neighborhood improvement programs under federal legislation.

Area planning: prepares redevelopment plans for special areas such as the downtown, transportation corridors, and historic areas. The focus of attention is the already-developed part of the city.

General research services: information systems development for the planning department; regular research reports on development and population trends; special ad hoc research.

The other main branch, land use planning, is divided into three sections:

Current planning: prepares or reviews area and neighborhood structure plans for newly developing sections of the city.

Land use projects: responsible for special projects such as the preparation of the new land use bylaw, and the assessment of major rezoning applications.

Land use control: processes subdivision applications and amendments to the land use bylaw.

Several features of this organizational structure are noteworthy. First, the department lacks a clearly identified unit for undertaking performance review and policy evaluation. Second, there is considerable uncertainty as to the exact division of responsibilities between the general municipal plan project and general research services section. In particular, the manner of handling monitoring in the department has not been clarified; currently, both units have some responsibility in the area, but no procedure has been developed for integrating their work. One final point is the organization's reliance upon formal permanent units for carrying out planning projects (such as the general municipal plan) rather than forming temporary project teams which would disband upon project completion.

Conclusions

The foregoing review illustrates that the Edmonton civic administration is characterized by some of the factors identified in Chapter 4 as inhibitors of organizational learning and the development of a responsive planning system. These include:

(1) Insufficient decentralization of authority to enable units within the organization to act independently.

(2) Upward referral of information for integration.

(3) Lack of communication cutting across the vertical lines of the organization, and a consequent lack of coordination of information.

(4) Limited exploitation of fluid structures such as temporary task forces, through which learning and innovative problem-

solving approaches develop.

(5) Limited dissemination of information to citizens, coupled with a fear of expressing conflicting opinions or information.

This overview of the Edmonton planning system provides the background for examining the outcome of the general municipal plan project.

OUTPUT OF THE GENERAL MUNICIPAL PLAN PROCESS

In addition to the plan document itself, the general plan program has resulted in two continuing processes: a set of activities to "finalize" and print the plan, incorporating changes made by city council; and a set of activities to implement and monitor the plan.

The Plan Document

The key qualities of the plan relevant for implementation and monitoring are the characteristics of the strategy, the nature of plan policies, and its directions for implementation.

The strategy is a selected array of the plan's major policies which deal with key issues. They are presented in a manner to show that they are mutually supportive, consistent, and aimed at some broad, general image for the future (that is, the "compact" city). The strategy is not as strong as envisioned in the early proposals, when it was taken to mean a set of municipal and senior government actions to shape the city's future. Primarily, this is because of the plan's neglect of capital programming directions to activities which would help Edmonton exercise control over the nature and direction of urban development. Nevertheless, the strategy was oriented to implementation: each policy was linked to at least one program; these were then summarized in a table to implementing programs. The clarity of the strategy was obscured by the wealth of other policies contained in the plan, which planners believed necessary for the sake of comprehensiveness. Many of these did not deal with critical issues.

The plan's overall structure, as well as its policies, were influenced by the need for responsiveness and the concern that monitoring be continued in the future. Objectives, policies and programs were linked, although one major deficiency was a frequently inadequate statement of intentions behind policies. This has resulted in a set of performance criteria which are narrowly defined. Policies are of varying degrees of specificity, reflecting in part the conflict betweeen the need for guidance and direction and that for flexibility. There is a tendency for the regulatory statements of the plan (such as density guidelines) to be specific, while those which would commit the municipal government to action are general. It was this inconsistency in detail which the advisory committee to the mayor perceived and attempted to grapple with. One of their concluding statements expresses their views on how the city should be guided in the next decade: "less central control and regulation and more innovation and discussion". A final point concerning the plan's responsiveness is its format, structured for easy amendments.

In terms of implementability, the plan included guidelines for the preparation of area structure and redevelopment plans, and the use of the land use bylaw and direct control. The summary table of implementing programs identified responsibilities among the various city departments, and another table outlined council commitments required to ensure implementation. Finally, the plan recognized the likelihood that many development decisions will arise which cannot be anticipated, and it is therefore written in a process-oriented style. It outlines guidelines and criteria for decisions, but does not attempt to prescribe the exact type of development allowed. Some of the guidelines are general and will require further detailing, while others are specific - perhaps too much so for a general plan. One critical component of the development decision-making process is to be provided by district planning, which is centered upon citizen involvement.

The 1979 plan differs from the 1971 plan in two principal ways. First, it is more explicit in its statements of the major themes of the plan through the growth strategy. Although there was a strategy in the 1971 plan, it was not as conscious as that of the 1979 plan, and was buried amidst the text. The 1979 plan was prepared from a perspective that through planning it is possible for a municipal government to actively shape its city's future, a view which does not emerge upon reading the 1971 plan. Second, the 1979 plan is making more of an attempt than under the 1971 plan to establish implementation and monitoring procedures. Although the latter recognized the need for these, a process never developed nor were responsibilities assigned. In the 1979 plan, responsibilities are identified, although implementation programs by which the city's future can be shaped are given little direction.

The plan adequately meets the very general requirements set out in the Alberta planning legislation. The growth strategy map describes proposed land uses, and the plan's policy statements outline the manner of future development. Maps in the chapter on implementation describe the areas of the city suitable for area structure and redevelopment plans.

Plan Finalization

Since the approval of the plan by city council in July 1980, the general plan section has been finalizing the plan. This has involved preparing the amendments and new chapters required by council, and arranging the final printing of the document. Although a "housekeeping" task, approximately two-thirds of the unit's staff have been working upon it. The printed plans, as well as a summary for citizens, were published in June 1981. Most amendments made by council were included in this document; however, two new chapters are still being prepared (on the city's policies for energy conservation and for institutional land uses).

Implementation Activities

Overview. The general plan proposed that its implementation be carried out through the establishment of an implementation program, a center of responsibility which would work with others to execute the plan's policies, guidelines and actions. To date, only two activities have occupied staff.

The first has been the preparation of terms of reference for district planning, to guide staffing, budgeting and programming of this major new experiment. A "handbook" was published in January 1981 as a result of this work. There is still considerable uncertainty as to whether, and how, district planning will operate, and staff time is therefore absorbed with negotiating its inception. At the time of writing, it is likely that the district planning program will become a separate unit in the community planning branch, rather than part of the general municipal plan section.

The second activity has been the review of major development proposals, area structure plans, and redevelopment plans for consistency with the general plan. This kind of review is the main responsibility of the development control sections of the department, but they are so unfamiliar with the plan (since they were not involved in its preparation) that they require the general plan section to interpret plan policies. The comment has been made that development control staff desire a blueprint with predetermined answers, rather than being prepared to work through the guidelines in the plan. In consequence, one activity proposed by general plan staff is the writing of a development handbook which would compile all the criteria to be considered in the review of development applications or proposals to amend the land use bylaw.

Staff have expressed concern that these tasks, along with plan finalization, require too much effort, and leave them little time to coordinate other implementation programs or initiate plan monitoring. For example, as of summer 1981, there had been no progress made on establishing a development industry liaison committee (proposed in the plan), reviewing capital budgets for consistency with the plan, or working closely with the land use bylaw staff to incorporate general plan density guidelines into bylaw regulations. It is becoming increasingly clear that this kind of detailed direction is to be relegated more and more to the district planning program, which is perceived to be the primary mechanism of plan implementation.

At the time of writing, the organization and responsibilities of the general plan section are in a state of flux due to the announcement in June 1981 that Edmonton's application to annex land surrounding it would be partially granted. The entire civic administration must now respond to this decision, and develop strategies for providing municipal services to the annexed land. Since much of it is undeveloped, land use planning will be required. While the city's original application to annex this new territory was being prepared, land use and staging plans were developed by the annexation project team, separate from the planning department (and the general plan section). Now, however, the planning department will reassume responsibilities for managing growth in the area. It appears that the general plan section will be split into two units, one to prepare a growth strategy for the annexed land, and one to maintain the "regular" program of implementation and monitoring. It is not known yet how these two activities will merge, or whether the annexation strategy will receive greater resources and thus, again, postpone the development of monitoring and implementation.

Development Application Review. Staff on the team believe that the rest of the department could be more knowledgeable about the contents of the general plan; it is for this reason that the unit continues to review development applications. The underlying issue is whether the plan will always need to have an "advocate", or whether, through education, its strategy will gradually be adopted throughout the department and collective responsibility for its implementation assumed. General plan staff admit that there is a need for a major process of education - of other planners, senior management, and city council. To date there has been little time to embark on such a task. Others in the department are reluctant to work with the document; for example, those who process amendments to the land use bylaw look to the plan for specific answers. These do not exist; rather, the plan sets out a checklist of criteria which must be applied and interpreted in each individual case, requiring hard work to understand and use.

Senior staff comment that the principal problem is the same one experienced with the 1971 plan - its lack of authority in practice, despite its statutory nature. The fuzziness of the Planning Act's provisions governing the authority of general municipal plans over the the land use bylaw, transportation and untility plans was cited as part of the problem. Consequently, other methods of strengthening the plan's role are being developed, such as salesmanship and negotiation. This practice is not unprecedented (for example, Healey and Underwood, 1978, pp. 96-103).

Influence upon Decision-Making. Some planners in the department have commented that erosion of general plan policies may have already started. They cite, for example, recent debates at city council on downtown housing, river valley policy, and transportation decisions; and, within the department, the debate over how to handle planning for the newly annexed territory which exposed doubts about the role of the general plan. However, most conclude that it is too early to assess the influence of the plan upon decision-making.

For this reason, it is also difficult to assess the effectiveness of plan policies in guiding implementation programs. The range of policy specificity (which was criticized by the mayor's committee) could actually prove to be a useful learning tool, to help formulate future policy which would be worded specifically enough that it provides clear direction, but not so rigidly that it is constraining. However, this learning could only take place if the monitoring program consciously evaluates plan policies and whether, and how, they are implemented. Since much of the actual detailing of guidelines is reserved to the district planning program, it is appropriate at this point to turn to this element of the plan implementation program and examine it in greater detail.

District Planning. The general municipal plan specifies that the city's objective is "to undertake district planning as a means of providing detailed planning services over broad areas of the city", and goes on to say that the plans thus prepared will "provide the links between the growth projected by the general municipal plan and the regulation of development on specific sites through the land use bylaw" (3.A and 3.A.1). The district planning process is perceived to be the main mechanism for carrying out the policies of the plan.

A district plan is to be adopted as an amendment to the general plan, rather than as an area redevelopment plan. It is to identify location, timing and form of residential development; location of commercial expansion; the need for park space; the need for additional physical infrastructure improvements or social services; and transportation plans. In addition the plan is to outline how the development guidelines of the general plan are to be utilized in particular areas of the district. Through preparing a district plan it is expected that conflicts between the inner city and developing suburban areas can be resolved.

These characteristics imply that the image of a district plan is of a single, land-use oriented document with high forecasting ability. The handbook prepared for the process states that the plan is to be based on a "rigorous definition of goals and objectives" (p. 49) and is to be developed first as a concept plan - "the best technical response to the approved goals and objectives" (p. 49) - and then as a more detailed policy plan. This latter will establish density and use guidelines (for example, designation of land use bylaw districts) as well as actions (such as responsibilities assigned to various civic departments) in order to implement the concept plan. The emphasis upon a document-oriented approach to the district plan places it in the tradition of the comprehensive-rational model of planning described in Chapter 2, an interpretation supported by the planners' linear description of the process: implementation of district plans is not to begin until after final approval of the plan - a step which will not likely occur for four or five years (p. 50).

In one key respect the district planning process is distinguished from traditional processes: citizens are to be provided a "significant opportunity to take important roles in planning" (p. 2). The development of the district planning idea has occurred simultaneously with a move to decentralize, at least, partially, some elements of Edmonton's municipal government. In September 1980 city council approved the creation of citizen community councils and the establishment of a community development office, two recommendations of a task force on local government created in 1979.

The general plan policy for citizen committees for district planning has now been combined with the task force recommendation for community councils; these are intended to function as non-partisan bodies of citizens (at the district level) to facilitate public participation in civic decision-making (report by the corporate policy planning office, November 1980, p. 4). The community development office is to assist in this participation process. The first task of a community council would be to assist in the preparation of district plans: it is through this exercise that citizens would learn skills to participate constructively in subsequent decisions.

There is still considerable uncertainty as to the status of citizen community councils, the community development office, district planning, and the means by which citizens are to become more involved in decision-making. Although city council approved the task force recommendations, it also appointed an ad hoc committee to hold hearings and receive citizen views on the community councils. At the time of writing, the task force report has been submitted, questioning the present concept of district councils and recommending a reversion to neighborhood planning (the central concern at the hearings on the general plan). The city council decision on the form of citizen participation will likely not be made quickly: new styles of planning and decision-making take time to evolve. In the meantime, therefore, implementation of the general municipal plan through district planning is being delayed.

The slow progress in initiating district planning can also be attributed to the planning department itself, however. There has been reluctance to commit the numbers of staff required (District Planning Handbook, 1981, p. 63); the implication is that district plans will not be completed until at least 1985. Again, the point can be made that the process is being developed in the traditional, ineffective manner: by the time district plans are approved by council, the general plan policies upon which they are to be based will be more than six years old and doubtless in need of review. An alternative approach might be to initiate a program of gradual policy review and formation at the district level through the development decision process. If an issue develops over a land use decision, the general plan policies would be utilized as guiding criteria, and district policies developed in close consultation with citizen groups. In this type of process, a "final" district plan document would never be developed.

Monitoring Systems

The Provisions of the Plan. The approach to monitoring is similar to that of many other plans, in that it is introduced in the last few pages of the plan, after all the substantive policy proposals. The implication is that the section was included as an afterthought.

The wording of the principal objective suggests that the main purpose of monitoring is constant adjustment of the plan in light of environmental changes: "...to ensure that the strategy in the general municipal plan maintains its relevance to current issues and development trends, and is adjusted as necessary". However, subsequent statements make clear the intention that the system should also be a watchdog on processes of development approval and policy formation in other areas of the administration. The monitoring policies commit the city to developing land and building information systems, the preparation of an annual monitoring report on development trends, and a major review of the plan every five years.

In addition to the policies governing the establishment of the monitoring system, the plan includes the district indicators identified for measuring the consistency of development trends with the plan's forecasts. Quantitative indicators (annual floor space, acreage or unit absorption rates) are provided for office, retail and industrial development. In the case of residential and population growth, the plan presents 1991 forecasts from which annual increments must be extrapolated. Qualitative indicators are provided for commercial and industrial development, but not for residential. In addition to this inconsistency, a critical deficiency is the indicators' lack of reference to plan objectives, and the ommission of criteria of significance. It will be difficult to interpret the meaning of a deviation from a target - to distinguish, for example, the need for more stringent implementation of a policy from determining that it is inappropriate.

This point leads to the wording of the policies themselves, and whether they are appropriately defined to enable monitoring to be undertaken. Certainly, in terms of some of the criteria developed in Chapter 4 - especially the need for policy management data - there are weaknesses. The policy reports give some additional background on the issues and rationale for each policy, but they generally lack discussion on key underlying assumptions.

As an example, the policy of increasing compactness of resiential development will be examined. How will a monitoring program assess if this policy is being followed and evaluate its impacts? First, the plan states (in the preamble and the relevant policy reports) that the policy was promoted for several reasons: in the inner city, efficiency in the utilization of services and the improvement of the environment; in the suburbs, efficient utilization of services, improved ability to provide for housing demand, improved competitiveness of the housing market, and energy conservation. While these statements are very general, they do indicate where consequences are expected; however, the plan provides no measures to assess the impacts of its policies.

The next contact with the policy is in Component 2, the growth strategy. Here, compactness is listed as one of the eighteen points of the strategy, and its achievement is tied to city council committing itself to a district planning program which would result in increased densities. One criterion of measurement, therefore, is whether such a program is in fact approved and initiated. Chart 2.2 in the same chapter of the plan provides the "growth guidelines" for monitoring development, defined for residential development in terms of additional units to be constructed in various parts of the city. This measure would be of no value in assessing the compactness of development.

Most of the discussion of compactness is in Component 5 of the plan - residential development. For both the inner city and the suburbs, the plan lists a number of policies to achieve higher densities. These policies pose several difficulties for monitoring: they tend to be permissive (for example, "the city will permit increases in density..."); they leave much of the actual use of the density guidelines to the district planning process (for example, "the city will, as part of the district planning process, assess the feasibility and desirability of establishing 'density nodes'..."); and, to a certain extent, they use terms such as "encourage" and "ensure", which are too vague to measure achievement. Finally, it would be virtually impossible to establish a development trends information system able to provide the kind of detail necessary to monitor the density guidelines. In the end, therefore, much of the monitoring of this policy will be undertaken through intuitive analysis combined with some broad assessment of housing trend data.

Monitoring Activities. As of the summer of 1981, the planning team has made virtually no progress towards a monitoring report, nor in developing any kind of a conceptual framework for the operation of a monitoring system. A variety of existing activities in other units of the department involve monitoring, although they have not been perceived as such, did not result from the general plan's influence, and are not integrated or coordinated by any one unit. The general research services section regularly produces reports on population trends and residential and industrial land development, and has in the past produced a "trend" report. Lists of development permits applied for, subdivisions being processed, and the various projects underway in the department are regularly produced. The agendas of department meetings - directors, managers, technical review committees, as well as the municipal planning commission - contain much information which could be used by an integrating monitoring system. Over the years, studies have pointed out to the department that it is not making the most effective use of information which exists within it, most recently in a report on information requirements (Cover West Information Systems, 1980). This report recommended tightening central control of information and creating a small working group to promote the use of information for policy performance measurement.

One activity which will be useful for monitoring will be the automated system being established for recording development permits.

This is not the first attempt at such an information system; the current effort is building on lessons learned from past mistakes. For example, the "population and land use system" of the early 1970's failed due to lack of organizational support, attributed in part to the costliness of a special survey approach instead of a less expensive system linked to operational data sources and methods of update. Nevertheless, the current effort is experiencing some difficulty. Operations units are reluctant to gather data that are not essential for their own operations, and there has been disagreement over the information that should be collected and how it should be stored. The issue has been exacerbated with the transfer of the development permit function out of the planning department.

The various sources of information just outlined would provide the base information to permit a monitoring unit to undertake both broad scanning and more detailed analysis. This unit would then need to link up with regular department meetings - such as directors or managers - to discuss trends in development and the impacts of policies.

There are a number of other city departments with which a planning department monitoring unit could work, especially the corporate planning office and policy analysis groups in departments such as power or telephones. It might be noted as an aside that the two profit-oriented departments have made the greatest progress in establishing policy analysis groups and initiating monitoring.

The monitoring unit would be expected to utilize information and feedback generated in other government and private agencies, as well as citizen groups. The district planning program has the potential, through citizen community councils, to create a mechanism which will facilitate the transfer of feedback to the municipal government.

To conclude this section: there is much potential for monitoring in Edmonton, since there is a wealth of information within the organization. Furthermore, although general plan policy is deficient in some ways, it does contain specific targets and performance indicators. What is needed is the identification of a center of responsibility in the organization to integrate information and evaluate policy, and a recognition of the importance of monitoring to prevent its priority from being gradually eroded (for example, in favor of annexation programming).

Chapter 8

OBSERVATIONS AND IMPLICATIONS FOR CHANGE

It has been over a year since the general municipal plan was adopted by Edmonton city council as a bylaw; yet, as the previous chapter demonstrated, there has been little progress either in implementing it or in developing systems for monitoring its policies and keeping it current. In fact, the plan itself is still being finalized. According to the argument developed in the early chapters of the thesis and the analysis in the last two, a variety of planning, organizational and legislative factors have contributed to this situation. In this chapter, these factors are summarized and implications for change drawn out.

The suggestions which follow are as specific as possible. While many writers argue very generally the need for organizations to alter their operating styles and structure in order to become more responsive, they are frustratingly vague on the question of feasible actions. For example, changes in policy making and monitoring are linked to "improved" knowledge, or "better" personnel (Dror, 1968, p. 218). Or, they are perceived as depending on basic and fundamental modifications in human behavior (Dror, 1968, pp. 292-293; Friedmann, 1973, p. 227; Michael, 1973, pp. 286-290) to become more trustful, open, emotionally supportive, expressive of feelings and able to learn. The literature of crisis and transformation argues the need for major and large-scale change, but as a rule it does not outline how to achieve it. The perspective in this thesis is less radical: rather than rejecting out of hand the current system, or speaking only in generalities, it attempts to identify changes that are feasible, even if only marginal in impact.

IMPLEMENTATION

Plan Preparation Process

(1) Allocation of Resources

Observation: Since plan approval, the general municipal plan section has expended considerable resources in gaining support for the district planning concept, the plan's main method of implementation. This has taken away time and resources from other activities (such as establishing the liaison committee with the development industry).

Implication: Greater support for district planning might exist now had the plan preparation process involved others in the department during the development of the district planning policies. This would have required skills not commonly demanded of planners, for negotiation and conflict resolution, and would have meant less emphasis upon producing a document. One implication of this is the need for altered expectations on the parts of the board of commissioners and the city council, who are in part responsible for the emphasis on producing written reports. Under a process-oriented approach, there would have been less time available for the quantitative analysis employed during issue identification, and the generation and evaluation of alternatives. However, this would not have caused problems had the plan team narrowed the issues and alternatives earlier and ratified direction through senior administration and city council. The lack of early involvement of senior staff and elected representatives ultimately contributed to the problems planners have faced in conveying the value of the plan.

(2) Influence of the Plan on Development Decisions

Observation: During plan preparation, planners took the view that isolation was necessary in order to achieve progress; consequently, opportunities to influence some key development decisions were not capitalized upon, and for a lengthy period decisions were being made without the benefit of a coordinated long range viewpoint which the planning team could have provided. As a result, the range of actions available to implement plan policy has been narrowed in areas such as transportation planning.

Implication: An alternative approach would have been for planners to involve themselves more in current decision-making processes, placing less emphasis upon producing a written document. This presents the hazard that staff time may be absorbed in educating and influencing others, but ultimately planning is perhaps more effective since decisions are influenced. This style depends upon a mutual learning process, in a looser, more decentralized organization structure than prevails in Edmonton now. Communication channels among planners, the board of commissioners and the city council need to be more open, and flows of information more lateral.

Current Activities

(3) Increasing Comprehensiveness

Observation: Activities aimed at increasing comprehensiveness of the plan's coverage (such as the writing of the chapters on energy and institutional uses) are inappropriate, since part of the difficulty of implementation arises from the fact that the plan already is too long, containing much that is not related to critical problems of growth and land use. Despite attempts to ease the reader through it, it is difficult to understand, and there is little evidence that other units in the planning department perceive its relevance to their operations. The growth strategy has been lost amidst the wealth of other policy statements included for the sake of comprehensiveness.

Implication: Resources of staff and time would be more effectively allocated if they were focussed on key municipal problems where the general plan's strategic framework can be used to provide some direction and thus demonstrate the relevance and value of the plan.

(4) Use of the Plan

Observation: Many planners expect a general plan to be a blueprint of the future which will provide immediate answers in a given decision situation, and they feel uncomfortable with the Edmonton plan which contains only guidelines and criteria. Consequently, the general municipal plan section must assume responsibility for interpreting the plan's directions pertaining to development decisions, instead of the control staff.

Implication: Unless the plan is used more widely within the department, a situation similar to that with the 1971 plan will arise. A process of education is therefore essential, so that other staff feel more comfortable with the plan and to gradually disperse responsibility for it throughout the organization. One method would involve staff exchanges between the policy and control units; in this way, implementers could evaluate their actions in a broader context, and the policy group could experience the ramifications of their work.

(5) Influence of the Plan upon Current Decisions

Observation: Because the district planning process has not been established, and because control staff are unfamiliar with the plan, its influence upon current decisions has been minimal.

Implication: The plan's implementation is dependent upon district planning; therefore, it is essential that the process be supported and initiated. However, some changes are required to the way it has been conceptualized. Because it will create the link between the general municipal plan and current decisions, it is essential that the process not be conceived as a long term plan preparation exercise producing nothing for five years. Its purpose should be the continuous injection of the strategic perspective into the daily decision making process, balanced by local interests, values and priorities. The district planning program should be open to experimentation and innovation, not only in the way citizens are involved, but also in the actual development decisions. This attitude, combined with subsequent monitoring, will enable the municipal government to learn about the effects of its policies.

Quality of the Plan

(6) Implementability

Observation: Some of the general municipal plan policies - such as the call for decentralization of employment - deal with urban processes over which the city has little control.

Implication: The monitoring program will be critical, in order to review progress in the implementation of plan policies. Amendments to the plan may be required, or special studies initiated to develop implementation programs and regulatory tools.

(7) Specificity

Observation: Specificity varies throughout the plan. A tendency to detail in regulations has caused a reluctance to amend the land use bylaw to conform until district plans are prepared. On the other hand, the generality in the directions for the city's own activities has hindered progress in guiding capital programs to implement the plan.

Implication: The monitoring program will be important to assess the usefulness of the different kinds of policies - the general versus the specific. With respect to the regulatory aspects of the plan: amendments to the land use bylaw, consistent with the general plan guidelines, should be allowed on an ad hoc basis, with each amendment reviewed in the district planning process. It would be ineffective to postpone amendments until district plans are prepared. With respect to the action aspects of the plan: if the city is to actively shape its future, it must use those tools available to it - utility servicing, transportation, and land acquisition. Increased priority must therefore be given to developing and reviewing specific capital programs to implement the general plan. Since a process already exists for coordinating capital programming (the annual preparation of the local policy plan by the corporate planning office), what is needed is a stronger consideration of the general plan perspective. Edmonton's establishment of a corporate planning process is an innovative move in the direction of strategic planning, and it is therefore fitting that the implementation of the general municipal plan is closely tied to the corporate planning office. One word of caution, however: there is danger of too much centralization with this approach; the discussion below about citizen participation is an essential adjunct to centralizing coordination by the corporate planning office.

Organization

(8) Center of Responsibility

Observation: The general municipal plan team has not been able to execute its responsibility for plan implementation, due to the press of other activities. No other unit has assumed responsibility.

Implication: Plan implementation will not take place until the responsibliity for coordination can be executed. The implication is that the plan team's role must be broad and strategic, achieved by passing to other units responsibility for detailed activities. The review of development applications with the general plan perspective should be undertaken by control staff; the coordination of capital programming, by the corporate planning office. The implementation unit in the general plan office would thus gradually adopt an approach of "control by exception".

(9) Dispersed Responsibility

Observation: Although in the legislation the general plan is considered to be a key municipal planning document, in practice few planners are familiar with it or feel any sense of responsibility for it. Consequently, its perspective is only infrequently brought to bear in decisions.

Implication: The literature of crisis and transformation is consistent in its calls for increased dispersal of responsibility in the decision-making process. Moves to centralize coordinating responsibility (to an implementation unit in the planning department and to the corporate planning office) must not mean that members of the organization remain unfamiliar with the plan strategy and policies. The need for increasing professional responsibility in the planning department has been identified by consultants, with an organization development process recommended as one approach. This would also facilitate monitoring as well as implementation.

MONITORING

Plan Preparation Process

(10) Allocation of Resources

Observation: During plan preparation, there was little contact with development control staff about their role in generating information for monitoring. Because of this, control sections are now uncertain about their role in monitoring and reluctant to lend it their support.

Implication: The plan-making process should have placed less emphasis on the preparation of a fully integrated comprehensive land use plan, and instead prepared some of the groundwork for gradually building the monitoring system. Approaches which could have been considered include:

(a) Action research: Utilizing the general plan process to "solve" problems of development control staff with respect to their own operations. For example, questions of density and carrying capacity have long been a concern of land use control: the plan team could have worked with the implementation sections during preparation of the density policies, gathering and analyzing data in ways that would be of most use to them. By producing early results through an action research program. the plan team might have gained more support for their efforts.

(b) Interpersonal contact: Although formal meetings can sometimes be unproductive, nevertheless it is through interpersonal contact that learning takes place in the organization and commitment is built. These intangible qualities are critical to planning effectiveness. To achieve them through the general plan program would have required more time working with those in the organization who would become involved in monitoring. The attempt early in the plan program to create committees was premature because planners did not have any definite material to discuss. A more effective approach would have been to postpone the discussion until after the general policy direction was established for the plan, and then - instead of the detailed quantitative exercise - work with others in small groups to develop performance criteria and mechanisms for monitoring the strategy. More time would also have been available for this type of activity had the plan team involved senior staff and city council earlier in developing and ratifying the plan direction.

Current Activities

(11) Allocation of Resources

Observation: Monitoring is not underway yet because of other priorities: staff effort has been devoted to continued drafting and redrafting of the plan, preparing a "final" version, and review of development proposals.

Implication: Monitoring is crucial to the effectiveness of planning, and its priority must therefore be increased. If a system is ever to be operational in Edmonton, either new staff must be hired (a weak solution in this time of concern about government expansion), or existing staff resources made available. This latter alternative implies that, in the same way that responsibilities for detailed implementation should be shifted to allow the team to coordinate implementation, so should responsibilities be shifted in monitoring. Detailed generation of information absorbs too much attention; instead the team should rely on existing information and outside sources such as the press, the community and citizens. Its role would then be a synthesizing one, interpreting and evaluating.

(12) Plan Amendment Process

Observation: Because the general municipal plan is a bylaw, amendments to it are time consuming. As a result, there is danger that planners will allow the plan to slip out-of-date, dooming it to the same fate as the 1971 document.

Implication: The inflexibility of a plan adopted by bylaw means less responsive planning. Two general possibilities exist in Alberta:

(a) Legislation could be amended to enable plan adoption by resolution, or an equally flexible alternative.

(b) Planners could work around the legislation, for example by splitting general plans into two parts, the first, a bylaw adopting a general growth strategy, and the second, a more detailed, easily changed part adopted by resolution.

In the case of the Edmonton plan which is already an adopted bylaw 200 pages long, the most feasible option would be to gradually move towards the second one over the next three to five years, using the annual monitoring report as the mechanism for keeping the plan current and relevant in the meantime. The local policy plan of the corporate planning office provides a good model: it is not adopted by bylaw nor does it have specific legal authority, but because of its strategic overview and its focus on current issues, it is recognized and used throughout the administration.

(13) Long Range Framework

Observation: The lack of a long range framework for monitoring has made it difficult to develop a program of immediate actions.

Implication: Some suggestions for a framework are provided in Appendix 1. However, this does not mean that a massive information system should be the obejctive. Rather, as much as possible, existing information should be used, with terms of reference kept small and realistic, especially at the beginning. An initial objective might be the preparation of a monitoring report comprised of an overview of development trends, a summary of key planning issues (identified by the monitoring team in concert with others), and analysis of one or two of the most strategic issues in terms of their policy implications.

Role of Citizens in Monitoring

(14) Facilitating Citizen Feedback

Observation: One of the potential dangers of monitoring is that, for the sake of coordination of action, it may result in increased centralization of government. This would be fundamentally at odds with the "self-regulating" society's need for dispersed responsibility for information flow, policy evaluation, and responsiveness. District planning has the potential of connecting centralized coordinating control with decentralized action and feedback mechanisms. However, there is a danger that district planning itself could become top heavy with management staff and slow down responsiveness if it acts only as another level in the municipal organization.

Implication: The dispersal of responsibility implies that the community - including citizens, organizations and the business community - would gradually assume an increased role in monitoring, policy evaluation, and formation of new policy. The incentive to provide information on policy impacts is improved if outside groups have some control over the policy formation process.

A major and critical implication of this point is the need for public access to government information, especially that explaining current policy. In Edmonton, this point has already been made by the Task Force on Local Government. Effective participation in monitoring will require that the city provide material explaining existing policies and programs, interpreting their objectives, clearly distinguishing between existing and proposed policies, and outlining possible impacts of the different alternatives. In addition to the passive role of making information available, the municipal government could actively facilitate participation by outside groups by providing community development assistance such as grants or staff, or, in the case of developers and other members of the business community, creating advisory committees.

Quality of the Plan

(15) Policies Pertaining to Monitoring

Observation: The functions for the monitoring system described in the plan meet most of the theoretical requirements, with the exception that policy evaluation and monitoring for unintended consequences are not stressed. The plan indicates that the need for a five year review will be evaluated.

Implication: The two functions not mentioned in the plan are the most important ones for a system to undertake, and the Edmonton program should recognize this. With respect to the five year review provision, the analysis in the thesis has shown its ineffectiveness in practice. Regular monitoring reports, coupled with a gradual shift to a slimmer bylaw and more flexible document, should obviate the need for major reviews.

(16) Policy Statements

Observation: Frequently, the plan's purpose statements do not make clear the intentions behind its policies. Because of this, monitoring systems will have difficulty developing useful criteria for evaluating performance or identifying unintended consequences.

Implication: To avoid being labelled as a data gathering function only, the monitoring process will need to improve its capacity for policy evaluation. This will require clarifying the ends behind policies to be monitored, as well as developing performance evalation criteria and indicators of significance (threshold levels, for example).

(17) Information to be Monitored

Observation: The plan idealistically implies that simultaneous comprehensive monitoring of all policies will be possible.

Implication: A more realistic approach is to monitor selectively, perhaps on an exception basis, focussing upon the most critical factors in the urban environment. These might include current major issues, those policies whose impact is most uncertain, those policies which are most controversial, and critical assumptions upon which the strategy success or failure is dependent. In this way the monitoring system will be geared towards identifying unanticipated consequences.

Organization

(18) Planning Department Structure

Observation: Policy evaluation, and even information collection and dissemination, are not given high prominence in the organization structure of the Edmonton planning department.

Implication: It is essential that increased priority be given to monitoring in the department. Several changes can be suggested:

(a) Creation of a small central policy analysis and evaluation unit reporting to the general manager or assistant general manager. This matrix location would provide the unit with authority and a central location for receiving information. While this change could be implemented relatively easily (staff could be shifted among lower priority projects and a few experienced planners assigned to the unit), it would not resolve other problems: potential duplication of functions between the general research services and general municipal plan sections, especially with respect to information gathering and analysis; a high degree of centralization which decreases professional responsibility;

and limited cross-communication among branches. Without resolving these problems, the potential for success of the policy evaluation unit is decreased. Therefore, additional changes can be suggested.

(b) Creation of a third major branch in the department focussing on information for policy analysis, including provision of information to the public. The branch would be formed by combining the following functions: the public information service; the library; the general research services information functions (such as trend analysis, forecasting, and information systems); the general municipal plan information functions (trend analysis and forecasting); and the department liaison functions with information produced elsewhere in the administration (such as the geographic data base, the development permit system, and information systems for city-owned land). This branch would provide the base informatoin and analysis required for monitoring, and would produce regular monitoring reports. It would also produce information for the public, with the public information unit acting as an advocate on behalf of citizens to ensure accessibility. The branch would not undertake policy evaluation, since this function would be the responsibility of the small unit reporting directly to senior management. However, there would obviously be close and constant contact between the two divisions.

(c) Various tactics aimed at developing an adaptive planning style. Monitoring requires widely dispersed responsibility for collecting information and interpreting feedback, but decentralization cannot occur rapidly in an organization as large and complex as that of the city of Edmonton. The process will be gradual, and will need to be built upon an organization development program which allows and encourages staff to assume increased responsibility. Tactics include: creation of ad hoc task forces and project teams; the use of temporary staff transfers among units; development of processes to enable greater participation by professionals in administrative and policy decisions; increased experimentation and innovation in managerial styles and planning decisions.

Urban Policy Research

(19) Role of Planning Theory

Observation: The policy evaluation function of monitoring is not easy. The planners found they had difficulty assessing the impacts of policies in the 1971 general plan, and it is likely that similar problems will arise with the 1979 plan. In many of the policy areas, there is insufficient theory to build solid cause-effect hypotheses of the impacts of government intervention in, and regulation of, the market.

Implication: If the policy formation process is to move away from a dependency on intuition, the following are necessary:

(a) Increased use of a comparative approach to policy analysis through greater transferring of information (especially evaluative) from one city to another. In Canada this could be facilitated through clearing house agencies such as the Intergovernmental Committee on Urban and Regional Research or the Canadian Federation of Municipalities. There is definitely a strong role for the central government to play in supporting these kinds of agencies. Much of the information already exists in locations such as the national library; the problem is more one of retrieval and dissemination. Unfortunately, with the dissolution of the federal Ministry of State for Urban Affairs, the possibilities of federal financial support for urban policy research and information dissemination are diminished. Such agencies must look to provincial governments for their support.

(b) Policy research is essential to the development of theory on urban processes, and theory is necessary to interpret feedback. Municipal governments themselves have neither the time nor the resources to undertake research, and they must look to senior governments, the universities, and community and junior colleges to help explain trends, interpret issues, and provide ideas for alternative policies. It may be useful to explore alternative ways of improving communication among these institutions, by expanding the purposes of some existing committee to include policy research, by forming a new group, or by creating an advocate position within the city administration.

Planning Legislation

(20) Planning Act Amendments

Observation: A number of weaknesses of the Alberta planning legislation were identified in Chapter 5 (the perception of regulation as the main means of implementation; the rigidity of the plan as statute; the lack of a policy-implementation link). While the problems being experienced in Edmonton in implementing and monitoring the general municipal plan are not the direct result of Alberta legislation, it is undoubtedly an influence. The plan's generality in its capital programming directions is consistent with the legislation's attitude towards plan control and guidance, while its specificity in regulatory guidelines meets the need for precision in a bylaw. The limited influence of the plan upon decision-making demonstrates the policy-implementation problem.

Implication: While legislative change may be neither necessary nor sufficient for increasing the responsiveness of the planning system, some (such as Roberts, 1976, p. 223) argue that change will not occur unless the law is reformed. Possible amendments might therefore include increasing the flexibility of general plans by altering their status as a bylaw; recognizing a municipality's right and responsibility to shape its future actively through exercise of planning control over transportation, utility extension, land acquisition and other capital works; resolving the policy-implementation problem to provide for some legal effect of plans, although not requiring conformity; and adopting a more process-oriented definition of general plans.

Planning Education

(21) Training of Planners

Observation: Some of the difficulties of implementation and monitoring are associated with the expectations of planners that the general plan should provide them with ready-made solutions, a blueprint of the future.

Implication: Planners' attitudes are influenced by their education: this suggests the need for the curricula of planning schools to become more process-oriented, presenting a view of planning resembling that outlined in Chapter 2. In order to facilitate the cross-fertilization of ideas among the profession, pluralistic backgrounds are probably desirable.

Concluding Statement

This study set out to take a retrospective look at what we accomplished in preparing the Edmonton general plan, but it cannot reach an overall conclusion as to whether the plan was a good one or not. A plan's merit cannot be judged only on the quality of its statements describing the purpose and direction of municipal development. These are necessary for the process of guiding environmental change, but they are not sufficient. Good planning also requires a process of pluralistic participation and weighing of interests, a constant exploration of the meanings of the terms "good" development and "sound" planning. The Edmonton plan set out a growth strategy, and attempted to develop and improve the processes for decision-making and evaluation, through district planning and monitoring. But processes require more than a plan document to initiate them, and progress has been slow. The foregoing suggestions have been aimed at making marginal change to speed the development of an adaptive, responsive planning style.

But, is marginal change sufficient? The opening chapter of the thesis touched on the tension between optimism and pessimism in planning. The pessimists call for major change, all the time aware of the difficulties of achieving it. In the end, there are no definite answers; we can do no more than carry out our responsibilities, maintaining the perspective and sense of balance expressed by Lash (1976, p. 87):

> The meaning of the planning process is that we will never be certain. Perhaps that very uncertainty offers the best hope of facing the future without fear.

GENERAL REFERENCES

Adler, Gerald M. 1971. *Land Planning by Administrative Regulation - The Policies of the Ontario Municipal Board*. Toronto: University of Toronto Press.

Alder, John. 1979. *Development Control*. London: Sweet and Maxwell.

Alexander, Ernest R. 1979. "Policy-Planning-Implementation: The 'Missing Link'". In Dan Soen, ed., *New Trends in Urban Planning*. Oxford: Pergamon Press. 38-51.

Altshuler, A. 1965. *The City Planning Process*. Ithaca: Cornell University Press.

Argyris, Chris and Donald Schon. 1974. *Theory in Practice*. San Francisco: Jossey-Bass.

______________________________. 1978. *Organizational Learning: A Theory of Action Perspective*. Reading: Addison-Wesley.

Babcock, Richard F. 1979. "Zoning". In International City Management Association, *The Practice of Local Government Planning*. Washington. 416-443.

Banfield, Edward C. 1959. "Ends and Means in Planning". *International Social Science Journal*. Reprinted in Faludi, A. (ed.) *A Reader in Planning Theory*. Oxford: Pergamon Press, 1973.

________________. 1968. *The Unheavenly City Revisited*. Boston: Little Brown.

Bardach, Eugene. 1977. *The Implementation Game: What Happens After a Bill Becomes a Law*. Cambridge, Mass.: MIT Press.

Bauer, Ramond A. 1968. "The Study of Policy Formation: An Introduction". In Ramond Bauer and Kenneth Gergen, (eds.) *The Study of Policy Formation*. New York: The Free Press. 1-26.

Beal, Frank and Elizabeth Hollander. 1979. "City Development Plans". In International City Management Association, *The Practice of Local Government Planning*. Washington. 153-182.

Bennett, R.J. 1978. "Regional Monitoring in the U.K.: Imperatives and Implications for Research". *Regional Studies*. 12: 311-321.

Bennis, Warren G., K.D. Bennet and R. Chin (eds.). 1976. *The Planning of Change*. 3rd ed. New York: Holt, Rinehart and Winston.

Bennis, Warren G. 1969. *Organization Development: Its Nature, Origins, and Prospects*. Reading, Mass.: Addison-Wesley.

Berlin, Isaiah. 1956. *The Age of Enlightenment*. New York: Mentor.

Bettison, David G.; John K. Kenward and Larrie Taylor. 1975. *Urban Affairs in Alberta*. Edmonton: University of Alberta Press.

Black, Alan. 1968. "The Comprehensive Plan". In Wm. I. Goodman and Eric C. Freund (eds.), *Principles and Practice of Urban Planning*. Washington: International City Management Association. 349-378.

Bolan, Richard S. 1967. "Emerging Views of Planning". *Journal of the American Institute of Planners*. 33: 233-245.

________. 1969. "Community Decision Behavior: The Culture of Planning. *Journal of the American Institute of Planners*. 35: 301-310.

Boyce, D.E.: N.D. Day, and C. McDonald. 1970. *Metropolitan Plan Making: An Analysis of Experience with the Preparation and Evaluation of Alternative Land Use and Transportation Plans*. Monograph Series No. 4. Regional Science Research Institute. Philadelphia.

Branch, Melville C. 1975. "Continuous City Planning". In M.C. Branch (ed.), *Urban Planning Theory*. Stroudsburg, Penn.: Dowden, Hutchinson and Ross. 240-251.

Breed, Warren. 1971. *The Self-Guiding Society*. (Based on Amitai Etzioni, *The Active Society*, 1968). New York: The Free Press.

Brooks, Richard O. 1979. "The Law of Plan Implementation in the United States". *Urban Law Annual*, School of Law, Washington University. 16: 225-270.

Burchell, Robert W. and George Sternlieb. 1978. *Planning Theory in the 1980's - A Search for Future Directions*. Center for Urban Policy Research, Rutgers University.

Candeub, Isadore. 1970. "New Techniques in Making the General Plan". In Ernest Erber (ed.), *Urban Planning in Transition*. New York: Grossman. 216-224.

Cartwright, T.J. 1973. "Problems, Solutions and Strategies: A Contribution to the Theory and Practice of Planning". *Journal of the American Institute of Planners*.

Catanese, A.J. and A.W. Steiss. 1970. *Systemic Planning: Theory and Application*. Lexington, Mass.: Heath Lexington.

Chadwick, George. 1978. *A Systems View of Planning: Towards a Theory of the Urban and Regional Planning Process*. 2nd ed. Oxford: Pergamon.

Chanter, Ed. 1976. A Study of General Plans in Alberta. Edmonton: Alberta Department of Municipal Affairs.

Chapin, F. Stuart. 1957. Urban Land Use Planning. New York: Harper and Brothers.

________. 1965. Urban Land Use Planning. 2nd Ed. Urbana, Illinois: University of Illinois Press.

________, and Edward J. Kaiser. 1979. Urban Land Use Planning. Urbana, Illinois, University of Illinois Press.

Cherry, Gordon E. 1974. The Evolution of British Town Planning. New York: John Wiley. 1974.

Clark, Peter A. 1972a. Action Research and Organizational Change. London: Harper and Row.

________. 1972b. Organization Design - Theory and Practice. London: Tavistock.

Clark, Ron. 1976. "The Crisis in Canadian City Planning". City Magazine. 1, No. 8, 17-24.

Clarke, Martin. 1978. Corporate Planning in Local Government: A Review. School of Geography, University of Leeds, Working Paper 221.

Coke, James G. 1968. "Antecedents of Local Planning". In Wm. I. Goodman and Eric C. Freund (eds.), Principles and Practice of Urban Planning. Washington: International City Managers' Association. 7-28.

Coleman, James S. 1975. "Problems of Conceptualization and Measurement in Studying Policy Impacts", in Kenneth M. Dolbeare (ed.), Public Policy Evaluation. Beverly Hill: Sage. 19-39.

Cripps, E.L. and P. Hall. 1969. An Introduction to the Study of Information. CES 1P8. Centre for Environmental Studies.

Cullingworth, J.B. 1974. Town and Country Planning in Britain. 5th ed. London: George Allen and Unwin.

________. 1978. Ontario Planning: Notes on the Comay Report on the Ontario Planning Act. Paper No. 19, Planning and Design, Department of Urban and Regional Planning, University of Toronto.

Dakin, John. 1960. "Thoughts on Theory-Method in the Planning Process". Plan. 133-143.

________. 1963. "An Evaluation of the Choice Theory of Planning". Journal of the American Institute of Planners. 29: 19-28.

Dale, Edmund H. 1969. "The Role of Successive Town and City Councils in the Evolution of Edmonton, Alberta, 1892-1966". Ph.D. Thesis, Department of Geography, University of Alberta.

Davidoff, Paul. 1965. "Advocacy and Pluralism in Planning." Journal of the American Institute of Planners. 31: 331-338.

________, and T.A. Reiner. "A Choice Theory of Planning". Journal of the American Institute of Planners. 28: 103-115.

Dror, Yehezkel. 1968. Public Policymaking Reexamined. San Francisco: Chandler.

Dyckman, J.W. 1961. "Planning and Decision Theory". Journal of the American Institute of Planners. 27: 335-45.

________. 1969. "The Practical Uses of Planning Theory". Journal of the American Institute of Plannners. 35: 298-300.

Elder, P.S. 1979. "The New Alberta Planning Act". Alberta Law Review. XVII: 434-466.

Emery, F.E. and E.L. Trist. 1972. Towards a Social Ecology - Contextual Appreciation of the Future in the Present. London: Plenum Press.

Erber, Ernest. (Ed.) 1970. Urban Planning in Transition. New York: Grossman.

Etzioni, Amitai. 1967. "Mixed-scanning: A 'Third' Approach to Decision-Making". Public Administration Review. Reprinted in Faludi, A. (ed.), A Reader in Planning Theory. Oxford: Pergamon. 217-229.

________. 1968. The Active Society: A Theory of Societal and Political Processes. London: Collier-MacMillan.

Faludi, A. 1973a. Planning Theory. Oxford: Pergamon.

________. 1973b. A Reader in Planning Theory. Oxford: Pergamon.

Ferguson, Francis. 1975. Architecture, Cities, and the Systems Approach. New York: George Braziller.

French, Wendell L. and Cecil H. Bell. 1973. Organization Development - Behavioral Science Interventions for Organization Improvement. Englewood Cliffs, N.J.: Prentice Hall.

Frieden, Bernard J. and Marshall Kaplan. 1975. The Politics of Neglect. Cambridge, Mass.: MIT Press.

Friedmann, John. 1965. "Comprehensive Planning as a Process". Journal of the American Institute of Planners. 31: 195-7.

________. 1966. "Planning as Innovation: The Chilean Case" Journal of the American Institute of Planners. 32: 194-204.

________. 1969. "Notes on Societal Action". Journal of the American Institute of Planners. 35:2-16.

________. 1971. "The Future of Comprehensive Planning: A Critique", Public Administration Review. 31: 315-326.

________. 1973. Retracking America - A Theory of Transactive Planning. Garden City, N.Y.: Anchor Press.

________. 1978a. "The Epistemology of Social Practice: a Critique of Obejctive Knowledge". Theory and Society. 6: 75-92.

________. 1978b. "Innovation, Flexible Response and Social Learning: A Problem in the Theory of Meta-Planning", in Robert W. Burchell and George Sternlieb (eds.), Planning Theory in the 1980's - A Search for Future Directions. Center for Urban Policy Research, Rutgers University. 163-177.

________. and Barclay Hudson. "Knowledge and Action: A Guide to Planning Theory." Journal of the American Institute of Planners. 40: 3-16.

Friend, J. and W. Jessop. 1969. Local Government and Strategic Choice. London: Tavistock Publications.

________; J.K. Power and C.J.L. Yewlett. 1974. Public Planning: The Inter-Corporate Dimension. London: Tavistock.

Galbraith, Jay. 1973. Designing Complex Organizations. Reading, Mass: Addison-Wesley.

________. 1977. Organization Design. Reading, Mass.: Addison-Wesley.

Galloway, Thomas D. and Riad G. Mahayni. 1977. "Planning Theory in Retrospect: the Process of Paradigm Change ". Journal of the American Institute of Planners. 43: 62-71

Gerecke, Kent. 1976. "The History of Canadian City Planning". City Magazine. Reprinted in The Second City Book - Studies of Urban and Suburban Canada. Toronto: James Lorimer, pp. 150-161.

Gillis, J.D.S. et al. 1974. Monitoring and the Planning Process. Institute of Local Government Studies. University of Birmingham, 1974.

Godschalk, D. (eds.) 1974. Planning in America: Learning from Turbulence. Washingon, D.C.: American Institute of Planners.

Goldberg, Michael and Peter Horwood. 1980. Zoning - Its Costs and Relevance for the 1980's. Vancouver, B.C.: The Fraser Institute.

Grabow, Stepher and Allan Heskin. 1973. "Foundations for a Radical Concept of Planning". Journal of the American Institute of Planners. 39: 106-114.

Gracey, Harry. 1973. "The 1947 Planning System: The Plan-Making Process". Ch. 2 in Peter Hall, ed., The Containment of Urban England. Vol. 2. London: George Allen. 72-96.

Hall, Peter. 1973. The Containment of Urban England. London: George Allen.

Hancock, John L. 1967. "Planners in the Changing American City, 1900-1940". Journal of the American Institute of Planners. 33: 290-304.

Hansen, W.B. 1968. "Metropolitan Planning and the New Comprehensiveness". Journal of the American Institute of Planners. 34: 295-302.

Harris, R. and D. Scoot. 1974. "The Role of Monitoring and Review in Planning". Journal of the Royal Town Planning Institute. 60: 729-732.

Haynes, P.A. 1974. "Towards a Concept of Monitoring". Town Planning Review. 45: 5-30.

Healey, Patsy and Jacky Underwood. 1978. "A Report on Research into Planners' Ideas in Practice in London Borough Planning Departments". Progress in Planning, 9: 73-127. Oxford: Pergamon Press.

Heeter, David. 1969. Towards a More Effective Land Use Guidance System: A Summary and Analysis of Five Major Reports. Chicago: American Society of Planning Officials.

Hickling, Allen. 1975. Aids to Strategic Choice. Center for Continuing Education. University of British Columbia.

Hudson, Barclay. 1979a. "Compact Policy Assessment and the Delphi Method: Practical Application of Dialectical Theory to Educational Planning and Forecasting". Center for Studies in Education and Development, Harvard University, Cambridge, Mass.

______________. 1979b. "Comparison of Current Planning Theories: Counterparts and Contradictions". Journal of the American Planning Association. 45: 387-398.

Jefferson, Ray. 1973. "Planning and the Innovation Process". Progress in Planning. 233-300. Oxford: Pergamon.

Kaplan, Marshall. 1973. Urban Planning in the 1960's: A Design for Irrelevancy. New York: Praeger.

Katary, Narasim. 1978. "Subject to Disapproval: The Ontario Planning Act Review". Plan Canada. 220-230.

Kaufman, Jerome L. 1978. "The Planner as Interventionist in Public Policy Issues" in Robert W. Burchell and George Sternlieb (eds.), Planning Theory in the 1980's - A Search for Future Directions. Center for Urban Policy Research, Rutgers University. 179-200.

Kent, T.J. 1964. The Urban General Plan. San Francisco: Chandler.

Klosterman, Richard E. 1978. "Foundations for Normative Planning" Journal of the American Institute of Planners. 44: 37-45.

Krumholtz, Norman; Janice M. Cogger, and John H. Liner. 1975. "The Cleveland Policy Planning Report". Journal of the American Institute of Planners. 41: 298-304.

Lang, R.S. and J.E. Page. 1973. Goals in Official Plans. Metropolitan Toronto Planning Board.

_______. 1975 "An (Incomplete) View of the Planner's Normative Model". Unpubl. Faculty of Environmental Studies, York University, Toronto.

Lash, Harry. 1976. Planning in a Human Way. Ministry of State for Urban Affairs. Macmillan.

Lash, Harry; E.T. Rashleigh, and A. Sutton. 1978. External Review of the City of Edmonton Planning Department. Unpubl.

Laux, F.A. 1971. "The Zoning Game - Alberta Style". Alberta Law Review. 268-

_______. 1972. "The Zoning Game - Alberta Style: Part II - Development Control." Alberta Law Review. 1- 37.

Levine, Robert A. 1972. Public Planning: Failure and Redirection. New York: Basic Books.

Lichfield, N.; P. Kettle and M. Whitbread. 1975. Evaluation in the Planning Process. Oxford: Pergamon.

Lindblom, Charles E. 1959. "The Science of Muddling Through". Public Administration Review. Reprinted in Faludi, A. (ed.), A Reader in Planning Theory. Oxford: Pergamon. 151-169.

_______. 1968. The Policy Making Process. Englewood Cliffs, N.J.: Prentice Hall.

Linneman, Robert E. 1980. Shirt-sleeve Approach to Long-Range Planning for the Small, Growing Corporation. Englewood Cliffs, N.J.: Prentice Hall.

Mandelker, Daniel R. 1976. "The Role of the Local Comprehensive Plan in Land Use Regulation." Michigan Law Review. 74: 899-973.

McAuslan, Patrick. 1980. The Ideologies of Planning Law. Oxford: Pergamon.

McLoughlin, J.B. 1965. "The P.A.G. Report: Background and Prospect" *Journal of the Town Planning Institute*. 52: 257-261.

________. 1969. *Urban and Regional Planning - A Systems Approach*. London: Faber and Faber.

________. 1973. *Control and Urban Planning*. London: Faber and Faber.

Meyerson, M. 1956. "Building the Middle-range Planning Bridge for Comprehensive Planning". *Journal of the American Institute of Planners*. Reprinted in Faludi, A. (ed.) *A Reader in Planning Theory.* Oxford: Pergamon. 127-138.

Michael, Donald N. 1973. *On Learning to Plan - and Planning to Learn*. San Francisco: Jossey-Bass.

________. 1974. "Speculations on Future Planning Process Theory", in D. Godschalk, (ed.) *Planning in America: Learning from Turbulence*. Washington: American Institute of Planners. 35-61.

Milner, J.B. 1967. *Tentative Proposals for the Reform of the Ontario Law Relating to Community Planning and Land Use Controls*. Ontario Law Reform Commission.

Mitchell, Robert B. 1961. "The New Frontier in Metropolitan Planning". *Journal of the American Institute of Planners*. 169-175.

Murchie, Graham; David Stuart and Ned Taylor. 1978. *Planning in Alberta: A Guide and Directory*. Alberta Department of Municipal Affairs.

________, J. Sklofsky and D. Stuart. 1980. "Evaluating Alberta's Regional Planning System using Action Research." *Plan Canada*. 20: 113-118.

Nelson, Ruben F.W. 1976. *The Illusions of Urban Man.* Ministry of State for Urban Affairs: Macmillan.

Ontario Planning Act Review Committee. 1977. *Report of the Planning Act Review Committee*. Toronto.

Patterson, T. Wm. 1979. *Land Use Planning - Techniques of Implementation*. New York: Van Nostrand Reinhold.

Perin, C. 1967. "A Noiseless Secession from the Comprehensive Plan". *Journal of the American Institute of Planners*. 33: 336-346.

Perraton, Jean. 1974. "The Process of Evaluation". In J. Perraton and R. Baxter (eds.) *Models, Evaluation and Information Systems for Planners*. Lancaster, U.K.: M.T.P. Co. 117-133.

Planning Advisory Group. 1965. *The Future of Development Plans*. London: Ministry of Housing and Local Government.

Pollard, Sidney. 1968. The Idea of Progress: History and Society. London: Watts.

Popper, Karl R. 1957. The Poverty of Historicism. London: Routledge and Kegan Paul.

Pressman, Jeffrey L. and Aaron Wildavsky. 1979. Implementation. Berkeley: University of California Press. 2nd ed.

Rider, Robert. 1978. "Transition from Land Use to Policy Planning". Journal of the American Institute of Planners. 44: 25-36.

Rittel, Horst W.J. and Melvin M. Webber. 1973. "Dilemmas in a General Theory of Planning". Policy Sciences. 4: 155-169.

Roberts, Neal Alison. 1976. The Reform of Planning Law - A Study of the Legal, Political and Administrative Reform of the British Land-use Planning System. London: Macmillan.

Rogers, Ian MacF. 1980. Canadian Law of Planning and Zoning. 1980 Cumulative Supplement. Toronto: Carsell.

Rondinelli, Dennis. 1973. "Urban Planning as Policy Analysis". Journal of the American Institute of Planners. 39: 13-22.

________________. 1975. Urban and Regional Development Planning: Policy and Administration. Ithaca: Cornell University Press.

Rose, Edgar A. 1979. "Monitoring and Review in the Planning Process" in Dan Soen, ed., New Trends in Urban Planning. Oxford: Pergamon, 22-37.

Rothblatt, D.N. 1971. "Rational Planning Reexamined". Journal of the American Institute of Planners. 37: 26-37.

Russell, Bertrand. 1961. History of Western Philosophy. 2nd ed. London: Unwin.

Rutter, Michael. 1978. A Quick Analysis of the Planning Act. Edmonton: Acorn Books.

Sayles, Leonard. 1976. "Matrix Management: The Structure with a Future".. Organizational Dynamics. 2-17.

Schon, Donald. 1971. Beyond the Stable State: Public and Private Learning in a Changing Society. New York: Random House.

Scott, Mel. 1969. American City Planning since 1890. Berkeley: University of California Press.

Seni, Daniel A. 1978. "Urban Plan and Policy Evaluation: An Assessment of Trends and Needs". Plan Canada. 105-117.

Simon, H.A. 1956. Administrative Behavior. New York: Macmillan.

Smith, P.J. 1979. "The Principle of Utility and the Origins of Planning Legislation in Alberta, 1912-1975". In Alan F.J. Artibise and Gilbert Stelter (eds.), The Useable Urban Past: Planning and Politics in the Modern Canadian City. Toronto: Macmillan. 196-225.

__________. 1980. "An Interpretation of the Reference Sources" (with respect to requirements for general plans). Unpublished class notes. Edmonton: Geography Department, University of Alberta.

Smith, Phyllis. 1980. "The New Planning Act for Alberta". Plan Canada. 120-123.

Solesbury, Wm. 1974. Policy in Urban Planning. Oxford: Pergamon.

Stuart, David A. 1980. "Planning in Uncertainty: The Alberta Experience - A Discussion". Unpubl. M.E.S. thesis. Toronto: York University.

Stuart, Darwin G. 1969. "Rational Urban Planning: Problems and Prospects". Urban Affairs Quarterly.

Sutherland, John W. (eds.) 1978. Management Handbook for Public Administrators. New York: Van Nostrand Reinhold.

Sutton, Alan. 1979. Strategic Monitoring for Long Range Planning. Report of a research project funded by the Federation of Canadian Municipalities, Greater Vancouver Regional District, and the City of Calgary.

Thayer, Ralph E. 1978. "The Local Government Annual Report as a Policy Planning Opportunity". Public Administration Review. 373-376.

Trist, Eric L. 1978. "Developing an Adaptive Planning Capability in Public Enterprise and Government Agencies", in John W. Sutherland (ed.) Management Handbook for Public Administrators. New York: Van Nostrand Reinhold. 389-422.

United States. Department of Housing and Urban Development. 1977. Innovative Zoning: A Digest of the Literature. Washington: Office of Policy Development and Research.

Walker, Robert A. 1950. "The Implementation of Planning Measures", Journal of the American Institue of Planners. 122-130.

Webber, Melvin W. 1963. "Comprehensive Planning and Social Responsibility". Journal of the American Institute of Planners. 29: 232-241.

______________. 1978. "A Difference Paradigm for Planning", in Robert W. Burchell and George Sternlieb (eds.), Planning Theory in the 1980's - A Search for Future Directions. Center for Urban Policy Research, Rutgers Universtiy. 151-164.

Wedgwood-Oppenheim, Felix; D. Hart and B. Cobley. 1975. "An Exploratory Study in Strategic Monitoring - Establishing a Regional Performance Evaluation and Policy Review Unit for the North West". Progress in Planning. 5: 1-58. Oxford: Pergamon.

Wholey, Joseph S. 1979. Evaluation: Promise and Performance. The Urban Institute. Washington.

Wildavsky, Aaron B. 1979. Speaking Truth to Power - The Art and Craft of Policy Analysis. Boston: Little Brown.

Williams, Walter Jr. and Richard F. Elmore (eds.). 1976. Social Program Implementation. New York: Academic Press.

Yates, Douglas. 1973. Neighborhood Democracy: The Politics and Impacts of Decentralization. Lexington, Mass.: Lexington Heath.

____________. 1977. The Ungovernable City: The Politics of Urban Problems and Policy-Making. Cambridge, Mass.: MIT Press.

GOVERNMENT DOCUMENTS

General Municipal Plan Project,
City of Edmonton Planning Department

May 1971. *The Edmonton General Plan*. Office Consolidation March 1972 with subsequent amendments.

June 1975. "A Proposal for the Review of the Edmonton General Plan". Unpubl.

April 1976. "Edmonton General Plan Review". Report to City Council, Item D.2.j., May 14, 1976.

June 1977. "The General Plan Review and the Policy-Making Process in Edmonton". Unpubl.

June 1977. "Proposal to Develop a Computer Land Use (Activity Allocation) Model for the City of Edmonton". Unpubl.

April 1978. "Progress of Edmonton General Plan Review". Report to City Council, Item F.1.c., May 23, 1978.

May 1978. "Planning for Edmonton's Future Growth: The General Municipal Plan". Unpubl.

May 1978. "General Plan Work Program - April 1978 to July 1979". Unpubl.

September 1978. "General Municipal Plan Project". Report to City Council, Item F.1.s., October 10, 1978.

November 1978. "Draft Background Chapter 1". Unpubl.

January and February 1979. Issue Paper Series - public information papers. Nos. 1 - 12. (Nos. 6, 11 and 12 never published).

February 1979. *A Citizen's Preview to the Edmonton General Plan*.

March 1979. "The Edmonton General Plan Workshop Papers". Series of 10 papers.

April 1979. "Growth Allocation Summary Reports - Trend, Compact and Concentrated Growth Options". Unpubl.

September 1979. *Draft Edmonton General Municipal Plan*. 2 Vols. Vol. I - Bylaw; Vol. II - Policy Reports.

September 1979. *"Report Back" on the Citizen Participation Program*.

January 1980. "A Response to the Mayor's Advisory Committee Report on the General Municipal Plan". Unpubl.

October 1980. Edmonton General Municipal Plan. Office Consolidation. 2 Volumes. Vol. I - Bylaw 6000. Vol. II - Policy Reports.

January 1981. District Planning Handbook.

April 1981. Citizen's Guide to the Edmonton General Municipal Plan.

General Municipal Plan File Sources

Council reports	G25-21
Interdepartmental material	G25-25; G25-42; G25-44; G25-45
Management issues	G25-83
Budget	G25-82; Planning Department accounts
June 1975 proposal	G25-02
May 1976 proposal	A-3
June 1977 report	B3-1
Work programs	B1-2 and B1-3
Citizen participation reports	B2-1 to B2-5 (prior to September 1978)
District planning reports	B4-2 (prior to September 1978)
Land use model proposal	C-3
Growth alternatives	E-8 to E-11
Evaluation of growth options	7-80
Goals reports	G-1 to G-6

Other City of Edmonton Publications

Corporate Policy Planning Office. March 1977. "The City of Edmonton Corporate Policy Planning Process". Unpubl.

________. November 1980. "Implementation of Citizen Community Councils and the Community Development Office". Unpubl.

Cover West Information Systems. January 1980. "Planning Department Information Requirements". Unpubl. report prpeared for the Planning Department.

Edmonton Social Planning Council. June 1979. The Edmonton General Plan Citizen Participation Program. 2 Volumes. Prepared for the Planning Department.

________. August 1980. "Evaluation Report - The Edmonton General Municipal Plan Citizen Participation Program". 2 Volumes. Prepared for the Planning Department.

Lash, Harry; E.T. Rashleight; and Alan Sutton. October 1978. "External Review of the City of Edmonton Planning Department". Unpubl. report to the Mayor.

Mayor's Advisory Committee on the General Plan Reivew. May 1979. "Plan Monitoring and Review and Citizen Input". Unpubl.

________. November 1979. "Report to the Mayor". Unpubl.

________. January 1980. "Concluding Statements". Unpubl

Planning Department. January 1971. City of Edmonton Land Use Classiciation Guide. Office Consolidation with subsequent amendments.

________. September 1977. City of Edmonton Zoning Bylaw. Office consolidation with subsequent amendments.

________. July 1980. City of Edmonton Land Use Bylaw.

Task Force on City Government. January 1980. The Form of City Government. Interim Report.

Task Force on Civic Organization and Accommodation. December 1977. "Report of the Task Force on Civic Organization and Accommodation". Unpubl.

Other Publications

Alberta. 1970. The Planning Act. Revised Statutes of Alberta. Chapter 276.

________. 1973. Towards a New Planning Act for Alberta. Edmonton: Department of Municipal Affairs.

________. 1977. The Planning Act. Statutes of Alberta. Chapter 89.

Calgary, City of. "Provisional Guidelines for the Development of a Strategic Monitoring System". Working Paper No. 3, Calgary Plan Review. Planning Department.

________. 1978. Calgary General Municipal Plan. Planning Department.

________. 1979. "Annual Monitoring Report, 1978 - 1979". Planning Department.

________. 1980. "First Annual Review of the Calgary Plan". Commissioners' Report to City Council February 11, 1980. Item E. 80-4. Planning Department.

________. 1980. "Second Annual Review of the Calgary Plan". Report to the Calgary Planning Commission May 21, 1980. Planning Department.

________. 1980. "The Long Range Strategic Monitoring System". Unpubl. Planning Department.

Greater Vancouver Regional District. 1980. "Livable Region Program Review". Draft 2A. Unpubl.

Nova Scotia. 1978. Halifax-Dartmouth Regional Development Plan Review. 3 parts. Department of Municipal Affairs.

Appendix 1

FRAMEWORK FOR A MONITORING SYSTEM IN EDMONTON

Of the activities and output of a monitoring system reviewed on pages 70 - 73, three are relevant in the Edmonton case: decision monitoring, trend monitoring, and policy evaluation. These functions form a continuum moving from least to most difficult. The planning department's current activities fall under the first function, while their objective to prepare a monitoring report can be classified in the second category. The third function, however, has not been mentioned in general plan material on monitoring. It is through this function that feedback and learning occur, and the first two are relevant only insofar as they enable the third to be carried out. The proposed framework therefore outlines activities related to this third function as well as the first two.

Functions and Activities of a Monitoring System in Edmonton

Function	Purpose	Activities and Sources of Information
1. Decision or action monitoring	To ensure consistency of decisions with plan strategy	a) Monitor applications for development, amendments to the land use bylaw and advise the control sections as necessary
		b) Monitor policy development and other municipal decisions and influence or negotiate as necessary. Sources of information include formal (agendas) and informal (personal contacts).
		c) Monitor decisions in other government agencies, through formal means such as committee participation, or informally.
2. Trend monitoring	To provide a base of information with which to evaluate results and effects of actions and policies.	a) Growth trends information to include population; housing; office and retail space construction; industrial development; other economic indicators.
		b) Development trends to include analysis of permit data, land absorption data, as well as less formal subjective data based on contacts with the development industry.

		c) Issue trends information to be obtained through citizen and developer contact, monitoring of the press, and personal and professional contacts. d) Policy trend information to be obtained from activities for the first function - decision monitoring.
3. Policy evaluation	To assess the impacts of policies in the strategy, including analysis of questions such as the implementability of policy.	a) The monitoring of decisions will provide information with which to assess implementability, including questions such as specificity versus generality of policies. b) The monitoring of trends in growth, development, issues and government policy will provide information with which to interpret the effects of policies (when used in conjunction with plan statements on expected effects, performance indicators, and levels of significance).